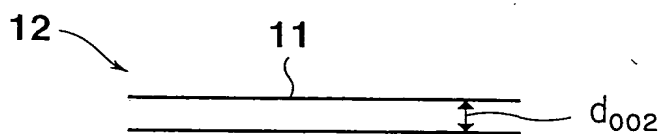


FIG. 1

(a)



(b)

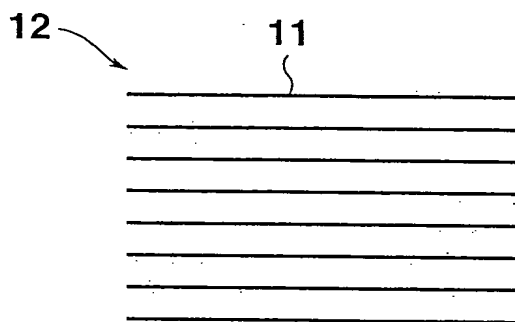
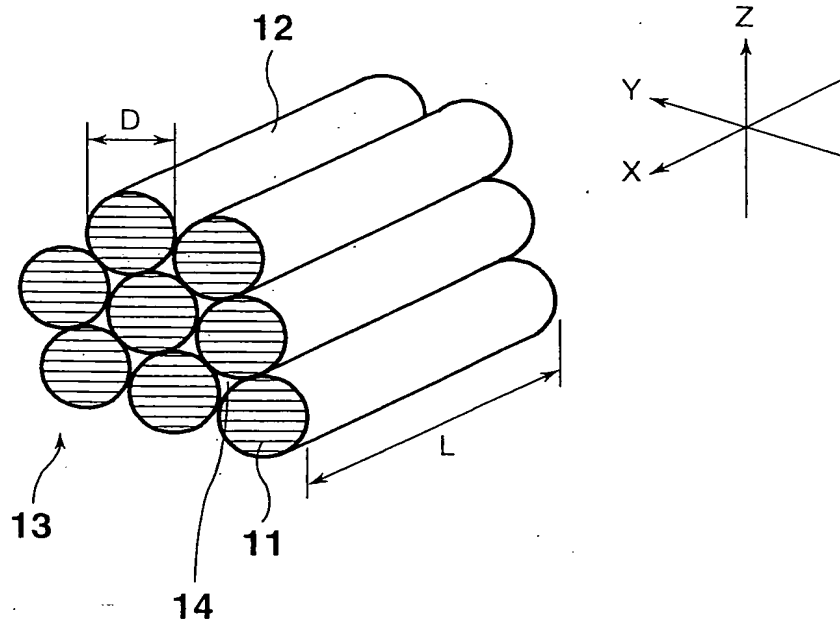


FIG. 2

(a)



(b)

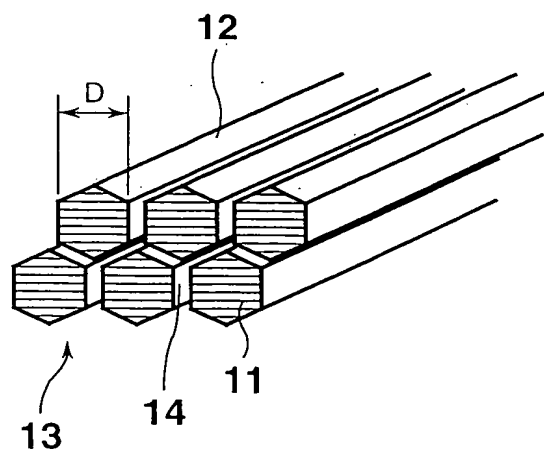


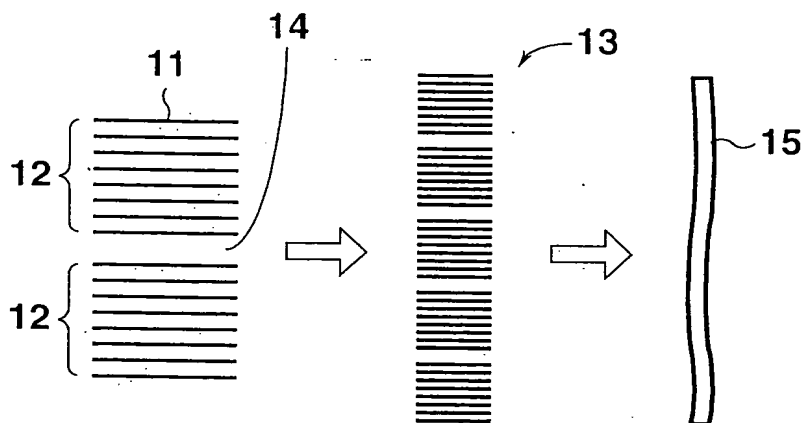
FIG. 3

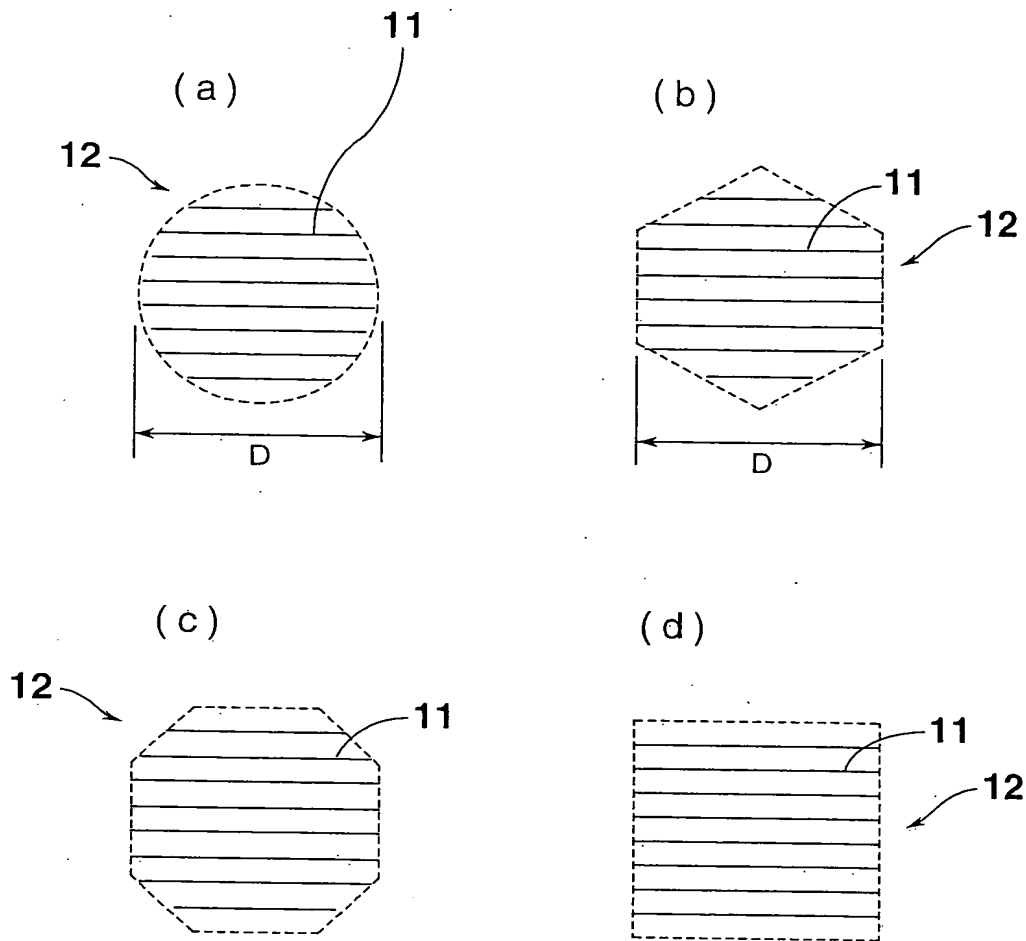
FIG. 4

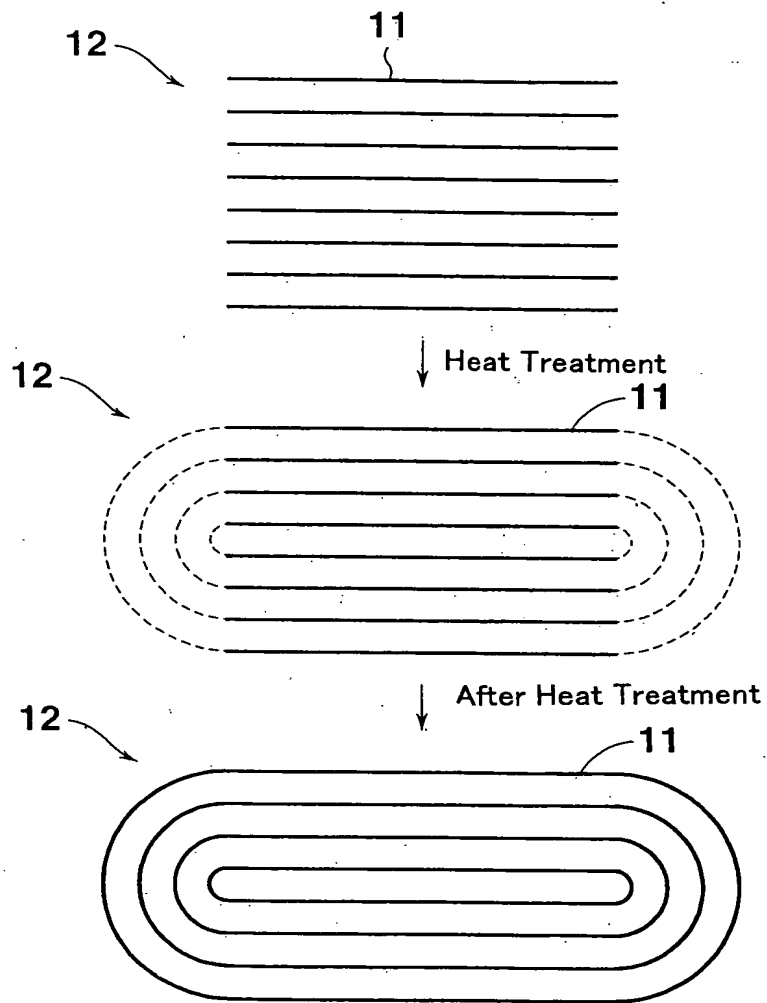
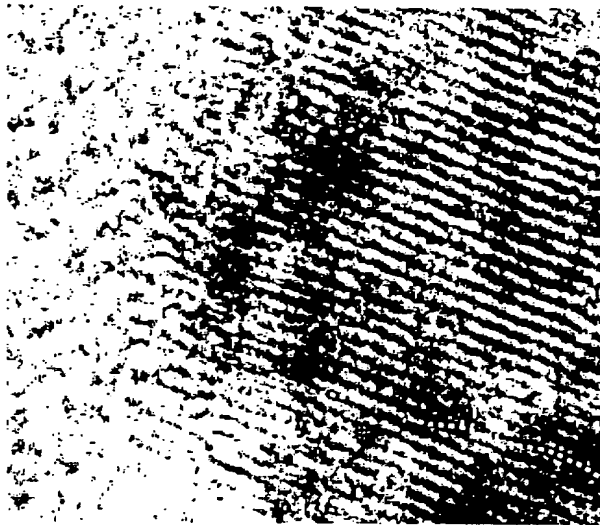
FIG. 5

FIG. 6

High Resolution Transmission Electron Microscope
Photographs of Carbon Nano-Fibrous Rod
(a) As-Prepared State
(b) 2800° Heat-Treated State

(a)



(b)


10nm

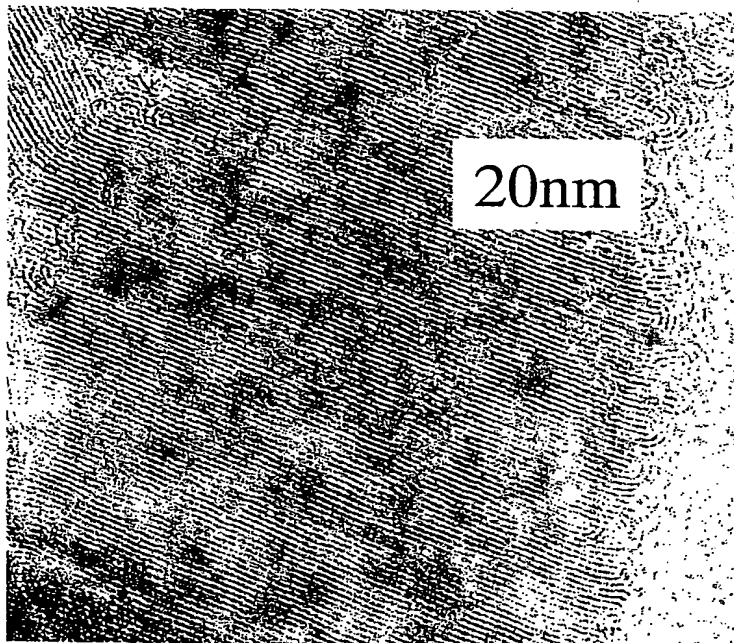
FIG. 7

High Resolution Electron Microscope Photographs of
Carbon Nano-Fibrous Rod

(a) High Resolution Transmission Electron Microscope
Photograph

(b) Scanning Tunneling Electron Microscope Photograph

(a)



(b)

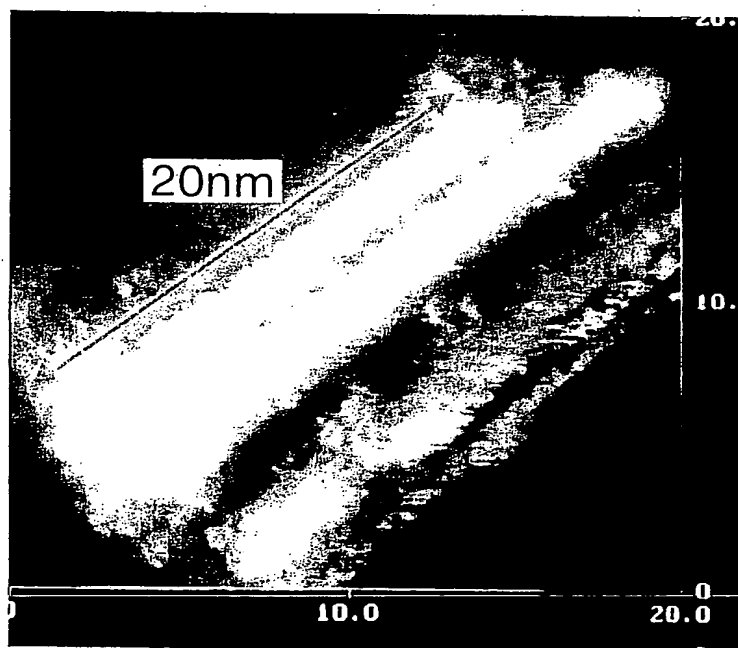


FIG. 8

Scanning Tunneling Electron Microscope Photograph of
Carbon Nano-Fibrous Rod

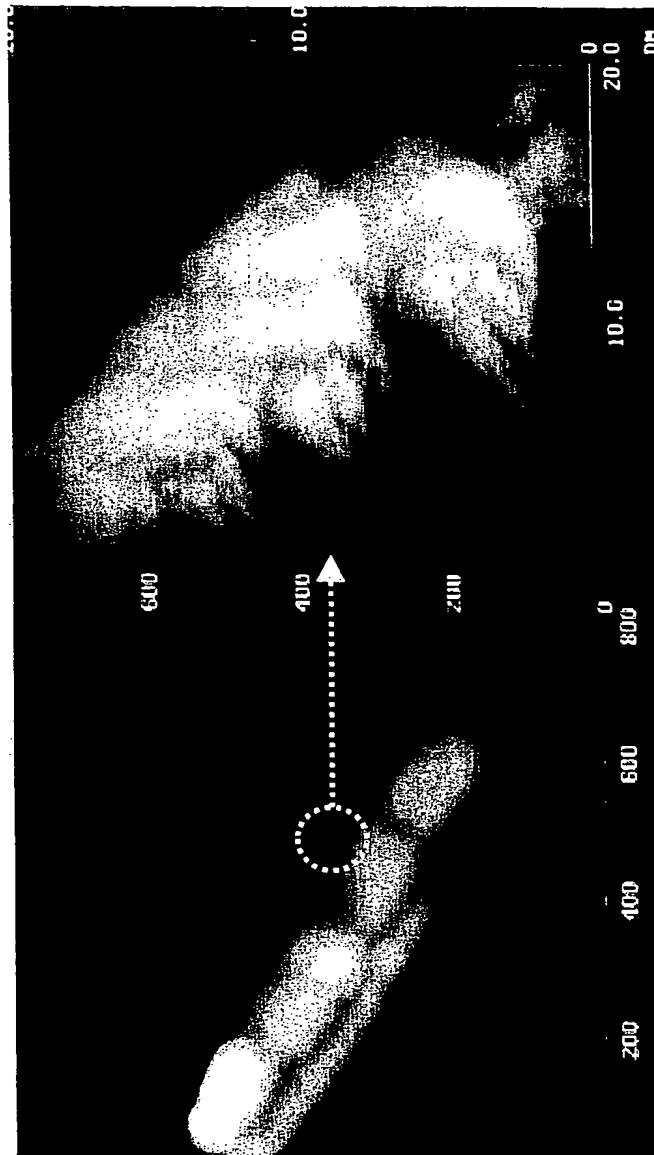


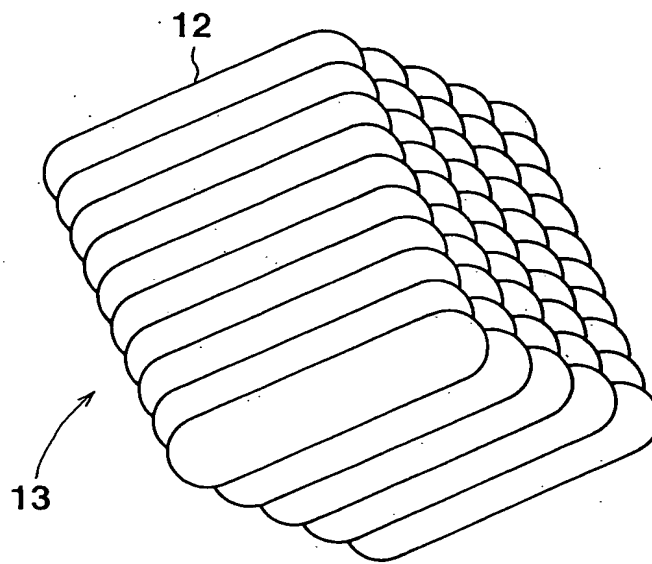
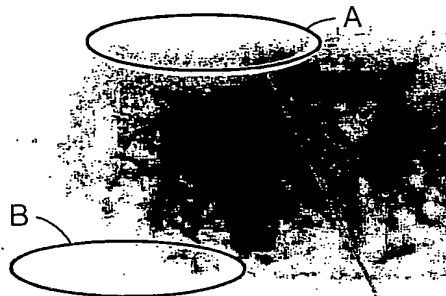
FIG. 9

FIG. 10

High Resolution Transmission Electron Microscope
Photographs of Fibrous Nanocarbon of Columnar Structure

(a)



(b)

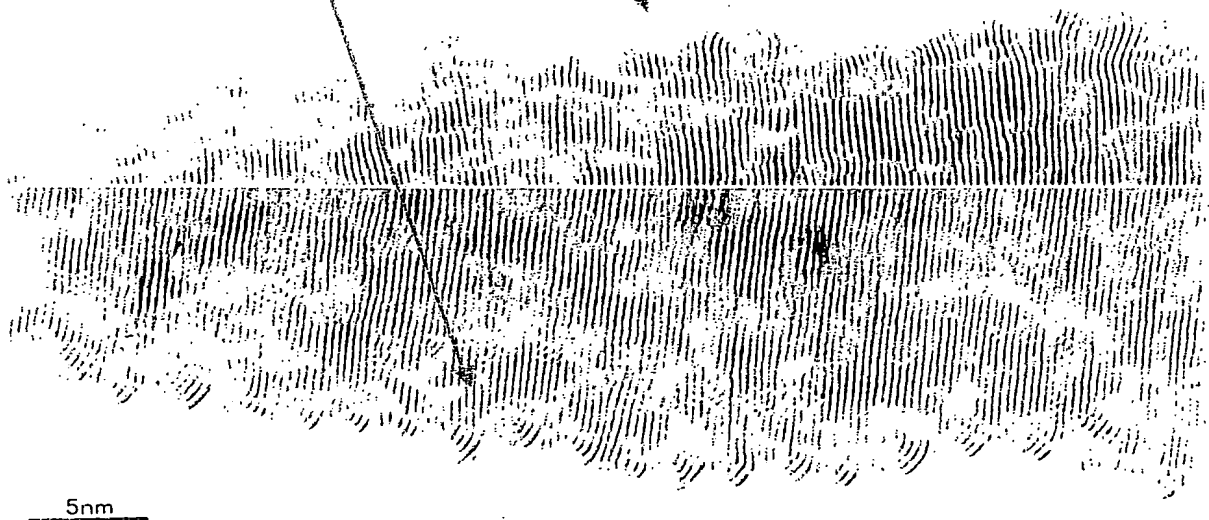


FIG. 11

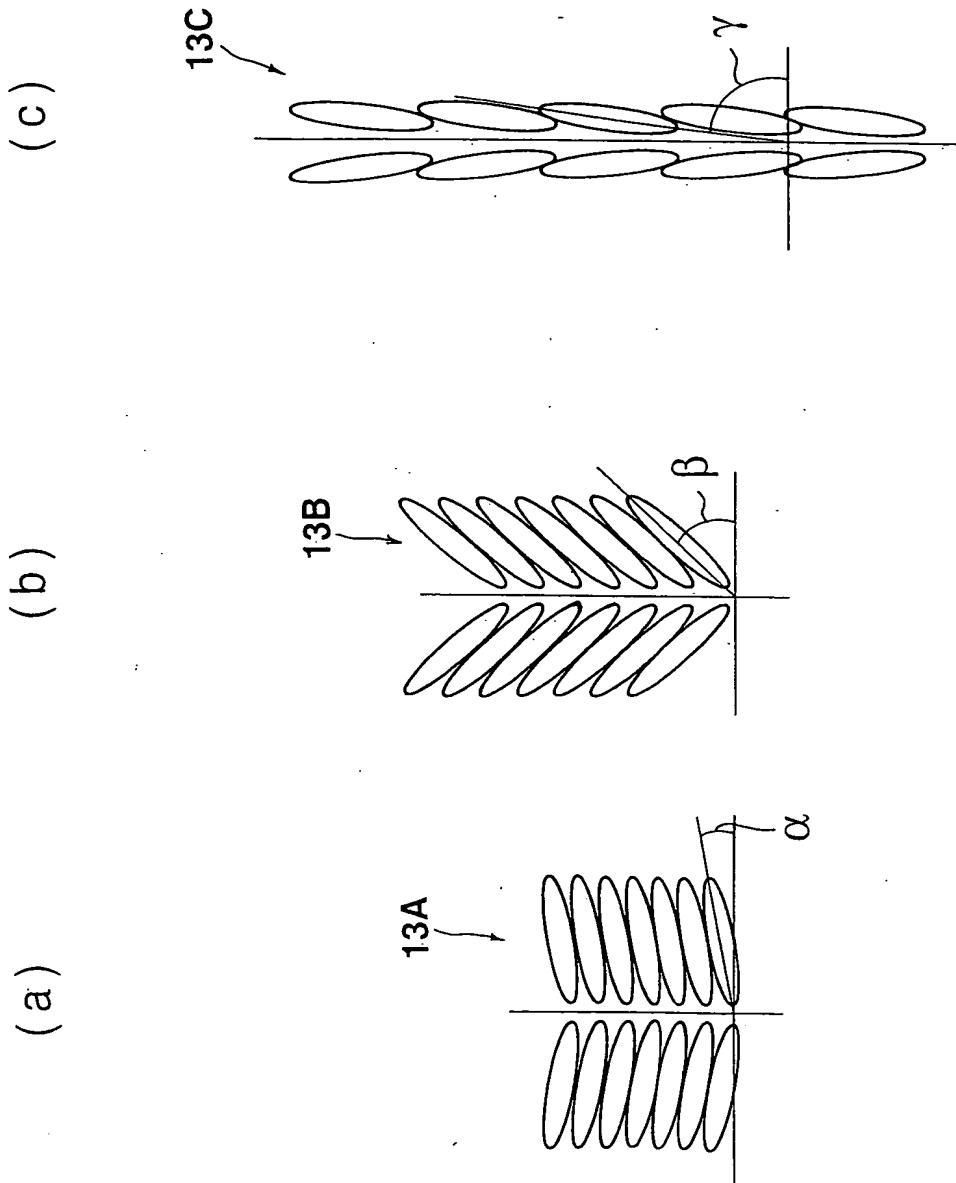


FIG. 12

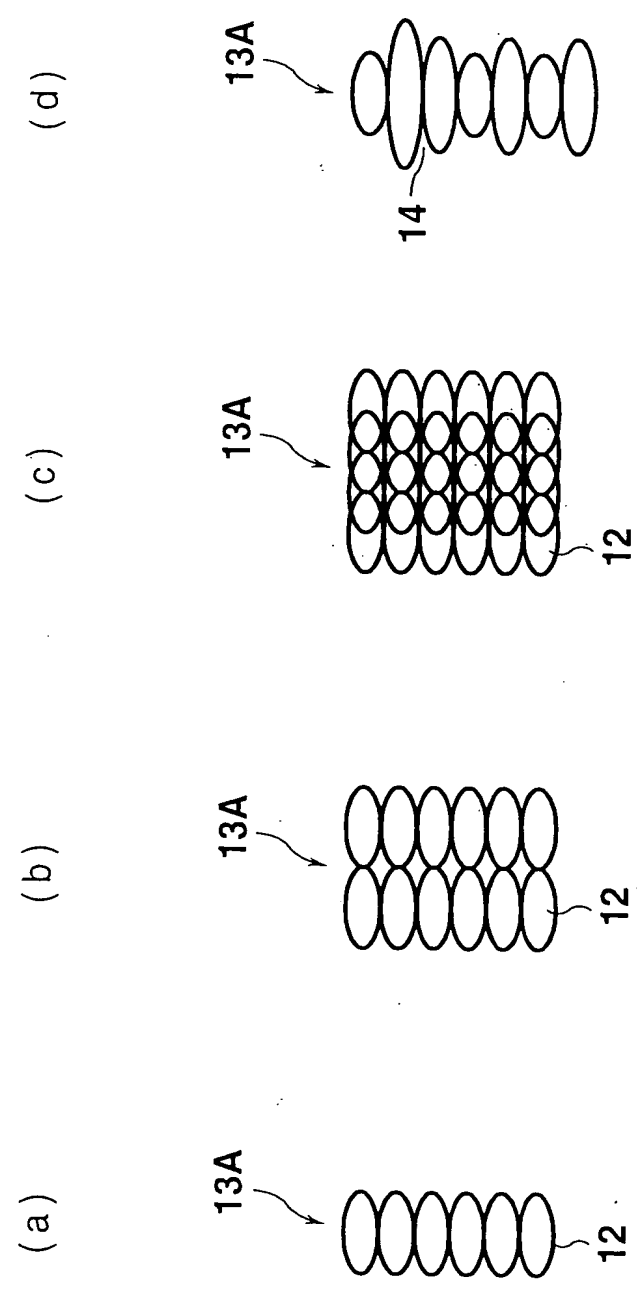


FIG. 13

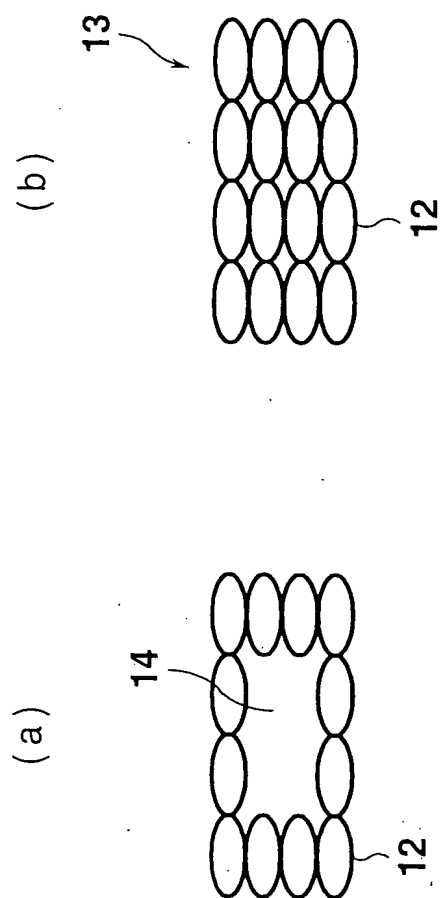
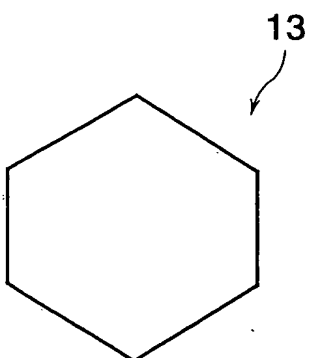
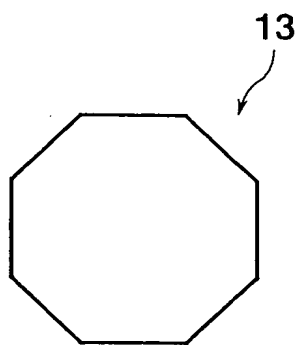


FIG. 14

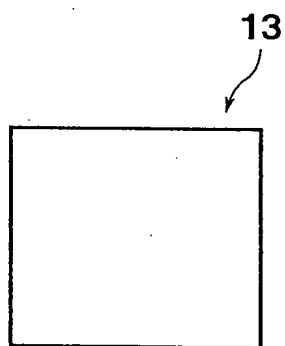
(a)



(b)



(c)



(d)

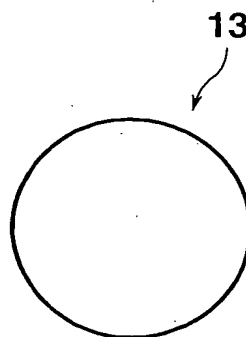


FIG. 15

High Resolution Scanning Electron Microscope
Photographs of Fibrous Nanocarbon

- (a) Fibrous Nanocarbon of Columnar Structure
- (b) Fibrous Nanocarbon of Feather Structure
- (c) Fibrous Nanocarbon of Tubular Structure

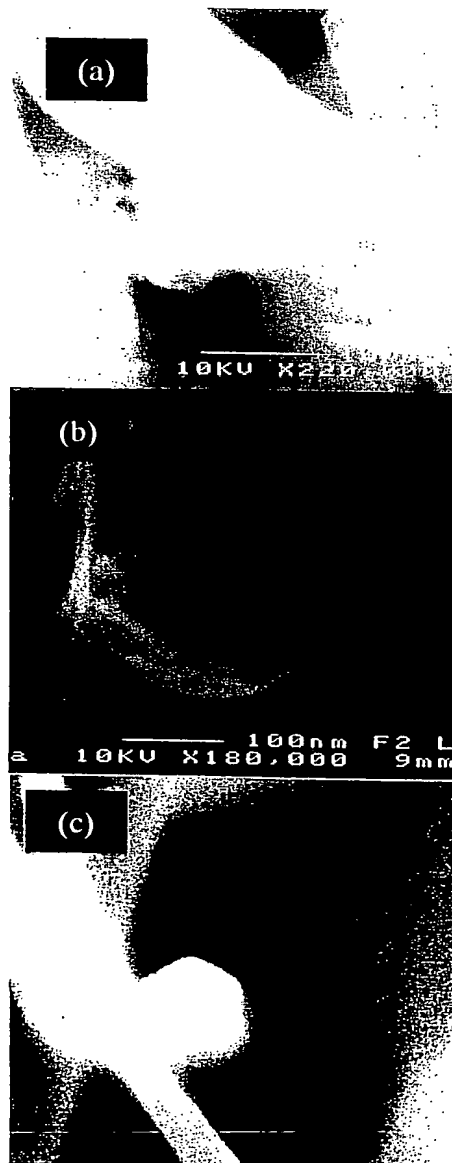


FIG. 16

High Resolution Scanning Electron Microscope
Photographs of Fibrous Nanocarbon
(a) Fibrous Nanocarbon of Columnar Structure
(b) Fibrous Nanocarbon of Feather Structure
(c) Fibrous Nanocarbon of Tubular Structure

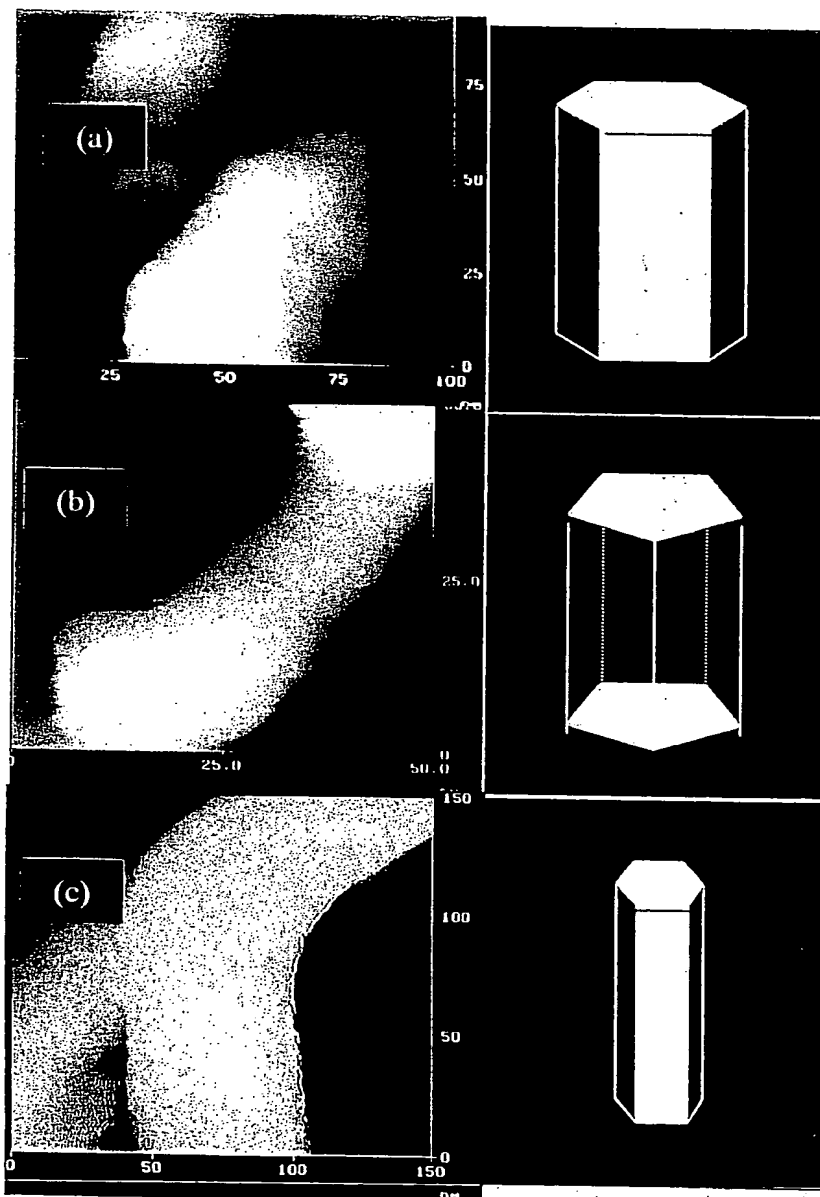


FIG. 17

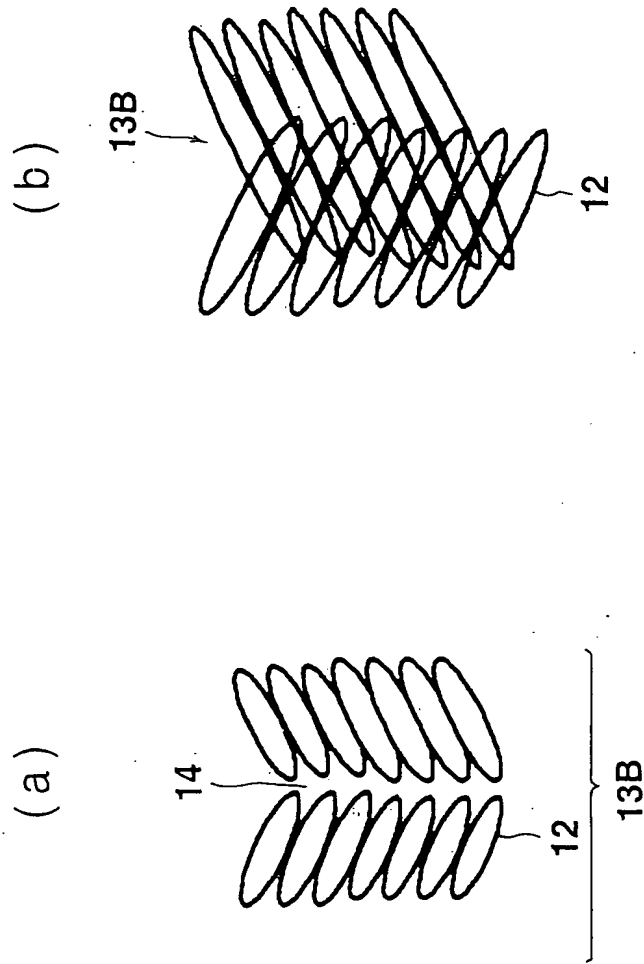
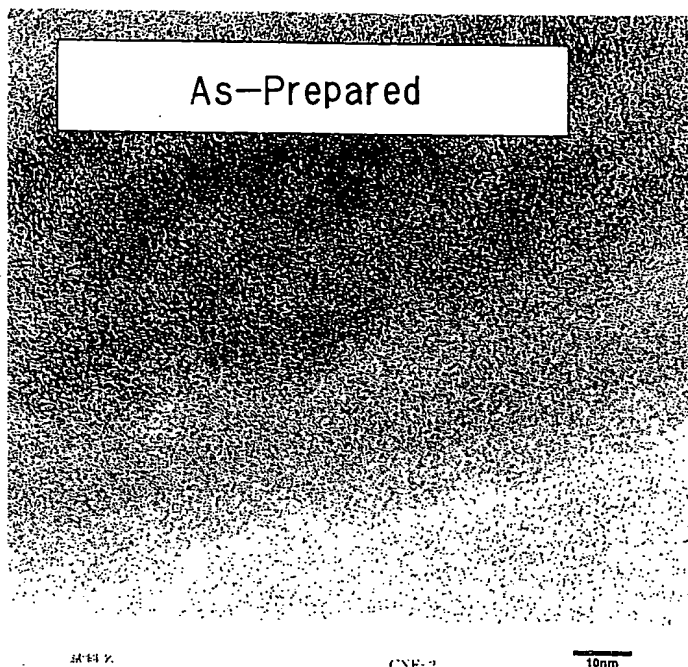


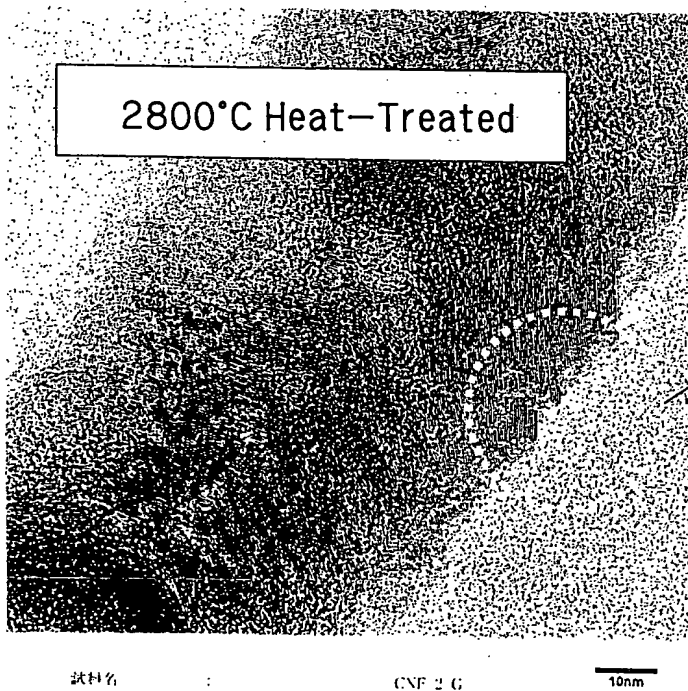
FIG. 18

High Resolution Transmission Electron Microscope
Photographs of Fibrous Nanocarbon of Feather Structure

(a)



(b)



(c)

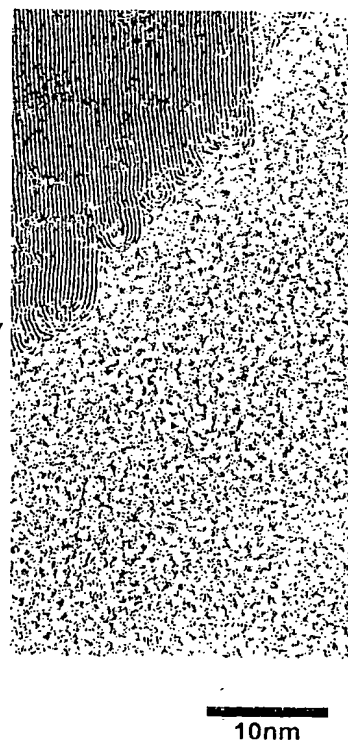


FIG. 19

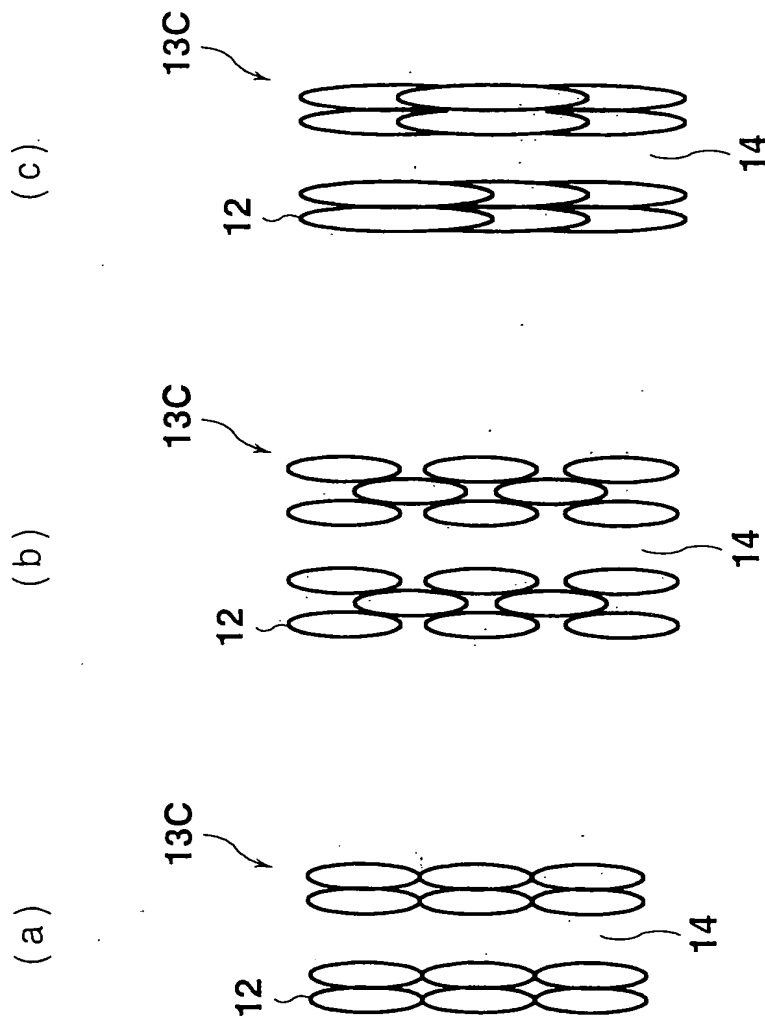


FIG. 20

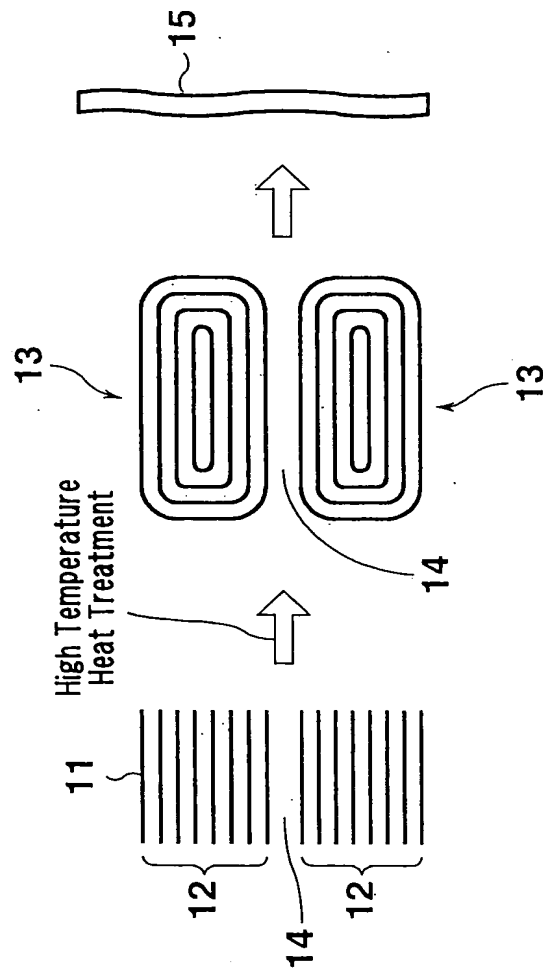
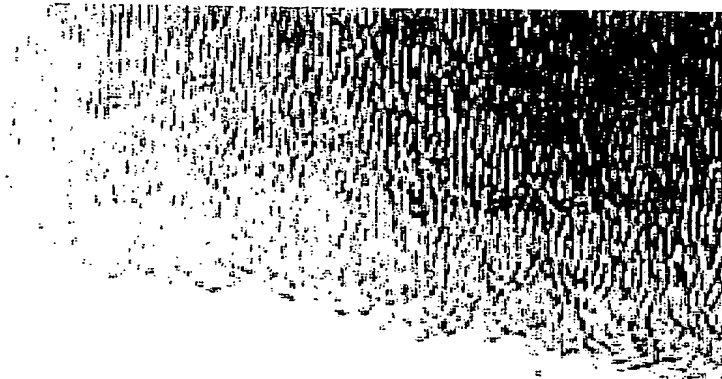


FIG. 21

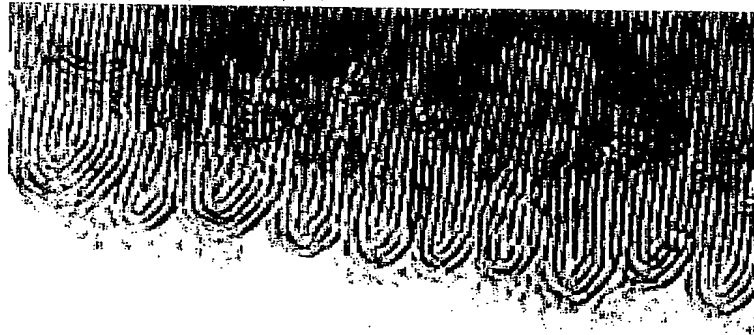
High Resolution Transmission Electron Microscope
Photographs of Fibrous Nanocarbon of Columnar Structure

(a)



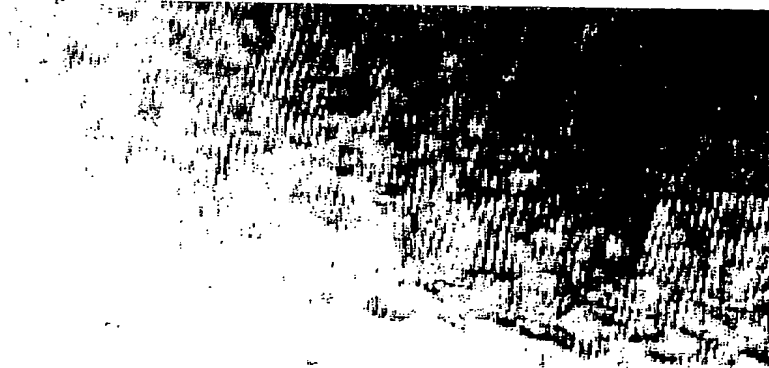
(-30 Degrees)

(b)



(0 Degrees)

(c)



(+30 Degrees)

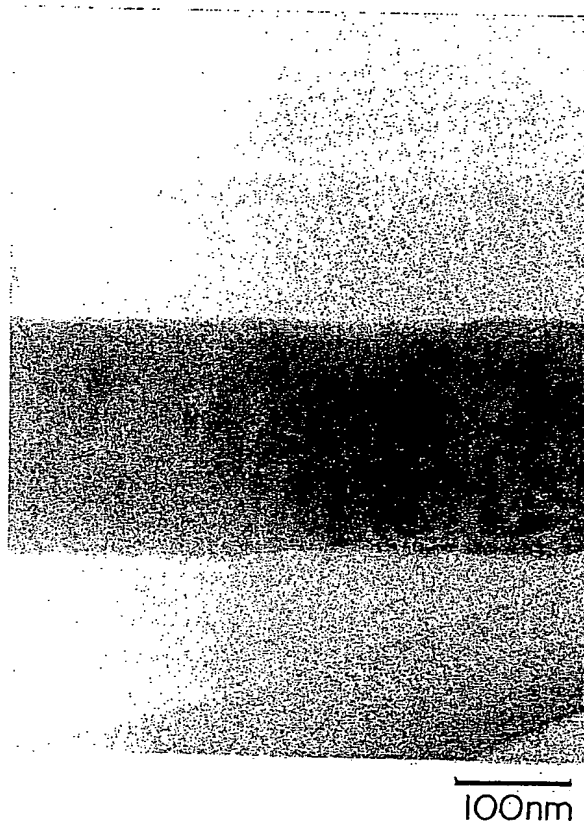
FIG. 22

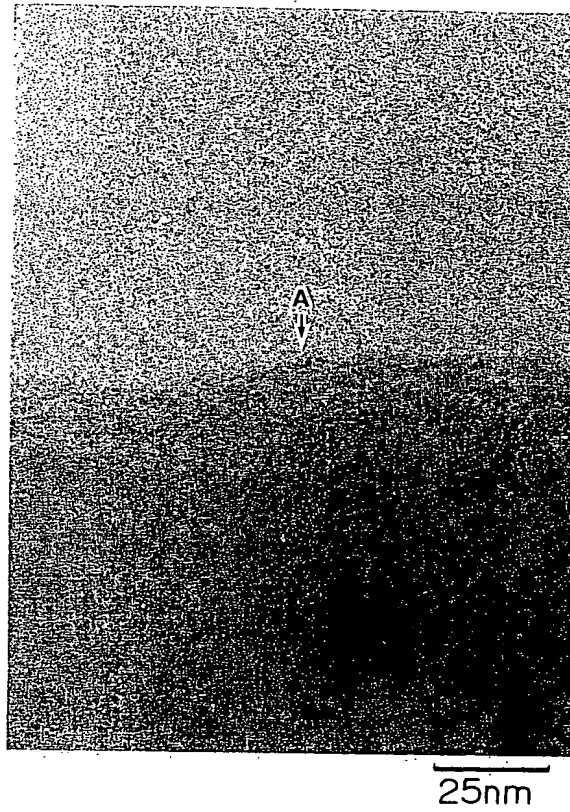
FIG. 23

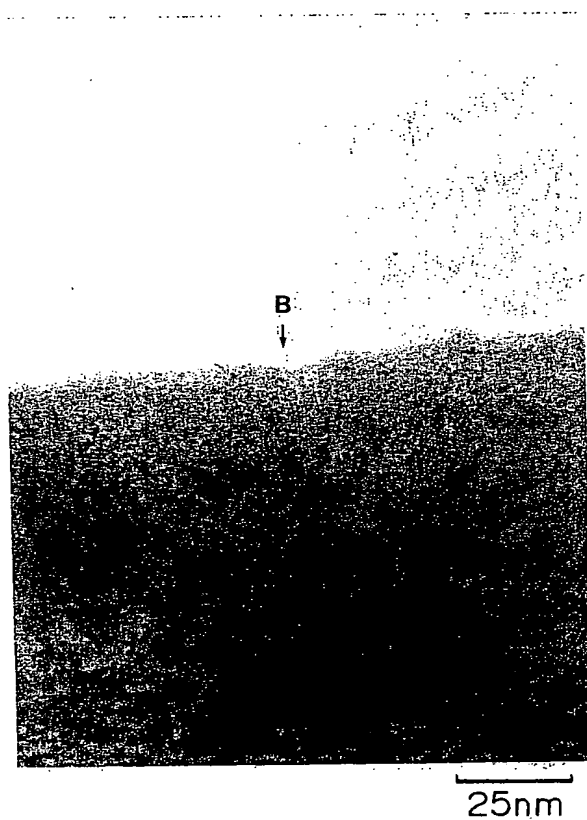
FIG. 24

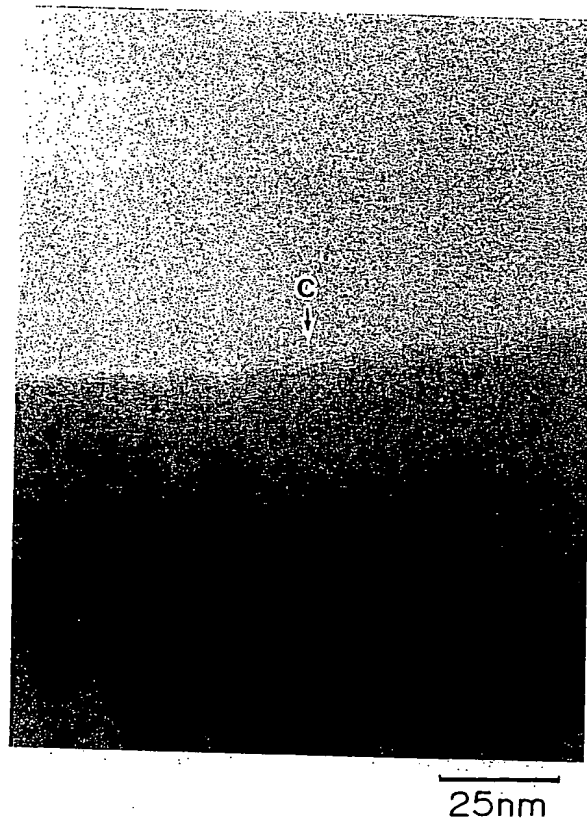
FIG. 25

FIG. 26

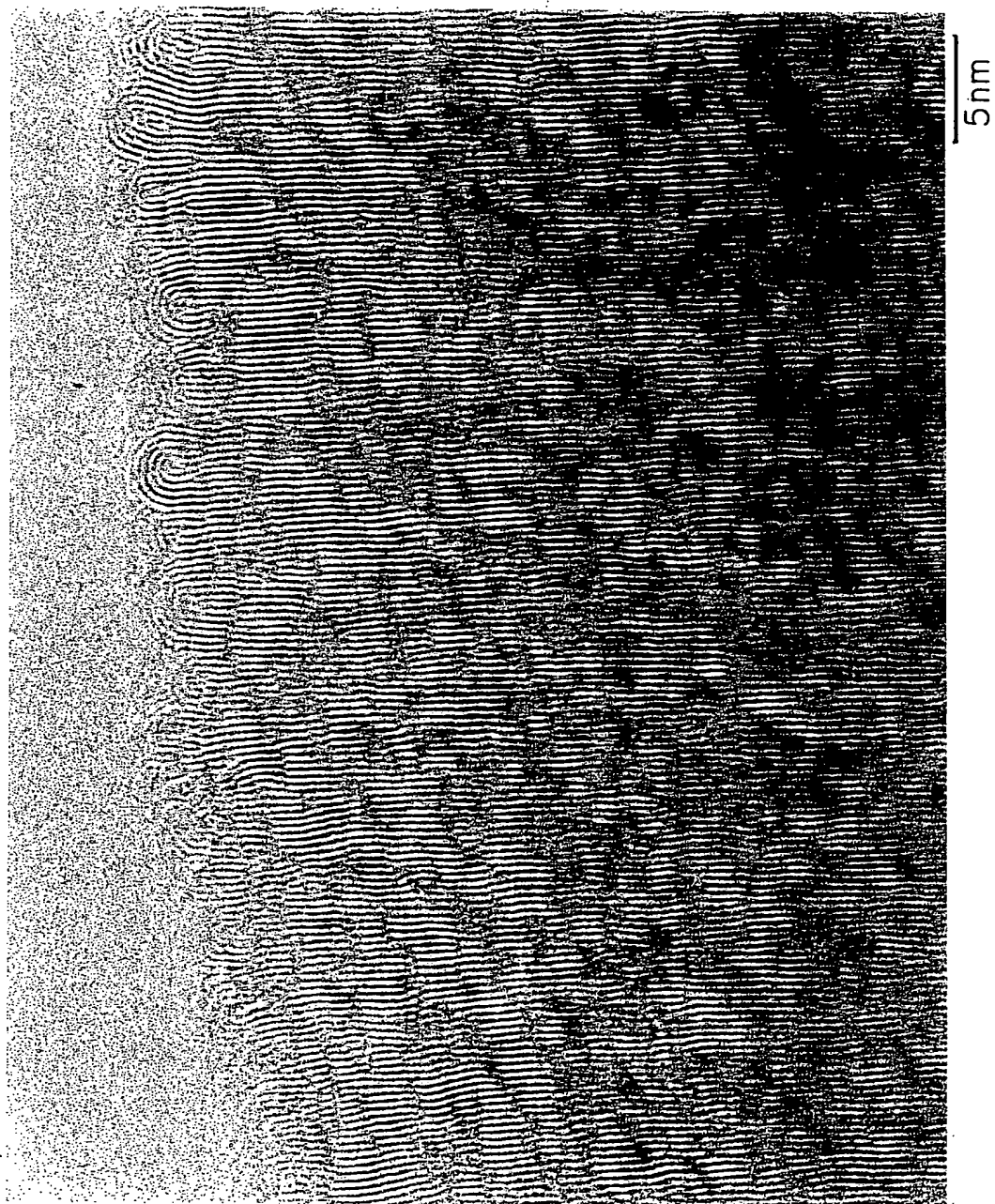


FIG. 27

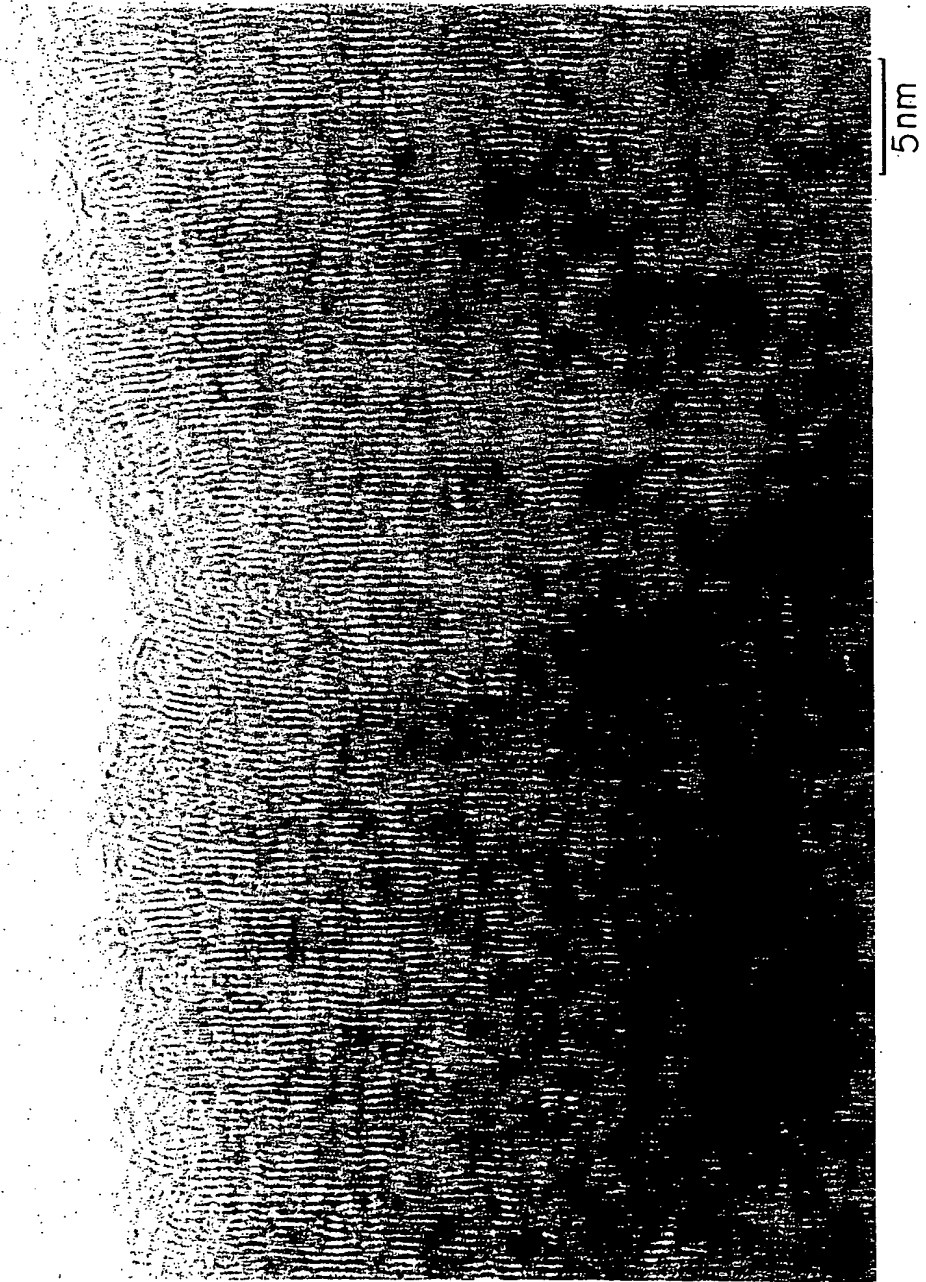


FIG. 28

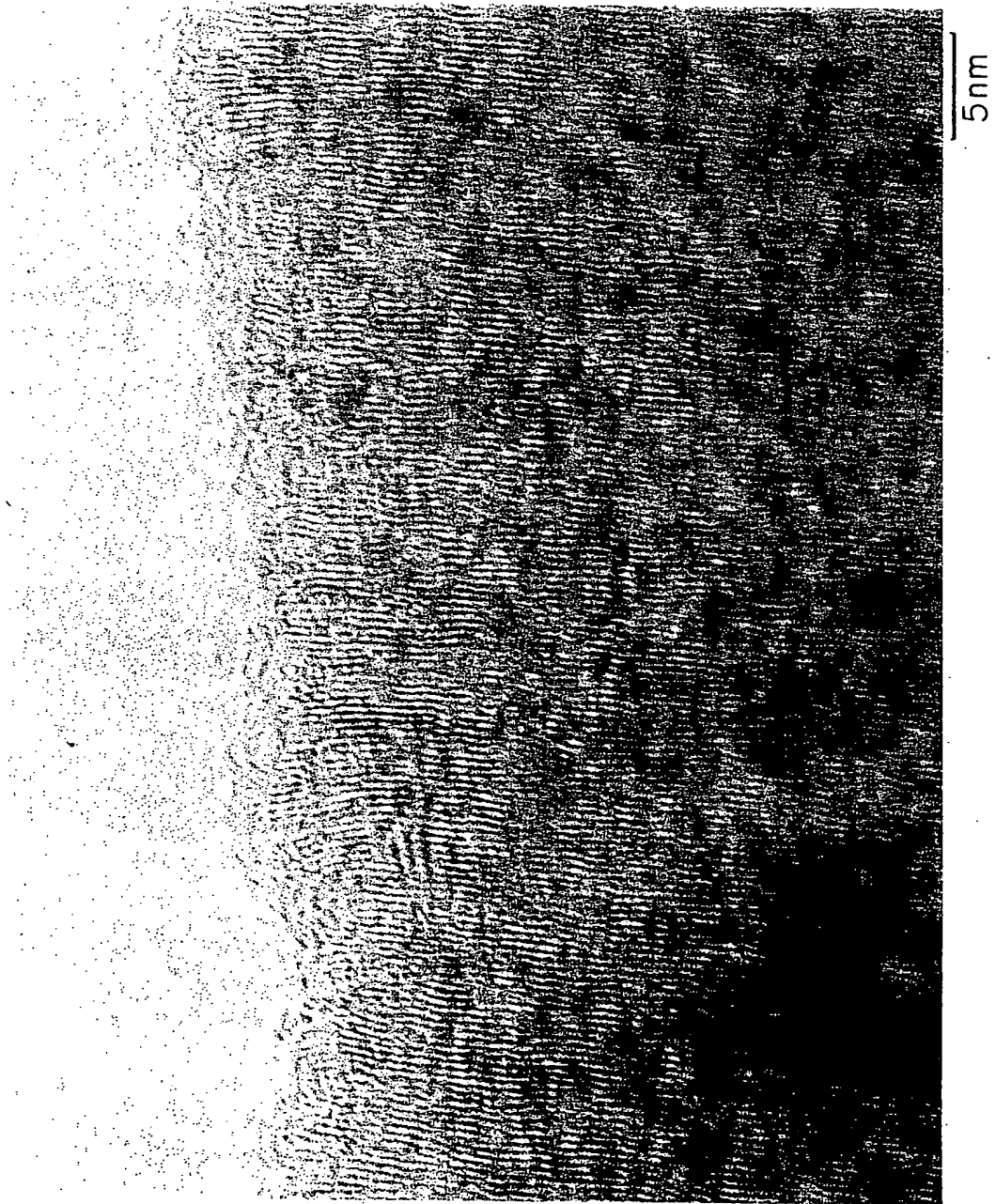


FIG. 29

High Resolution Scanning Electron Microscope
 Photographs of Fibrous Nanocarbon
 (a) Fibrous Nanocarbon of Columnar Structure
 (b) Fibrous Nanocarbon of Feather Structure
 (c) Fibrous Nanocarbon of Tubular Structure

As-prepared

2800°C heat-treated

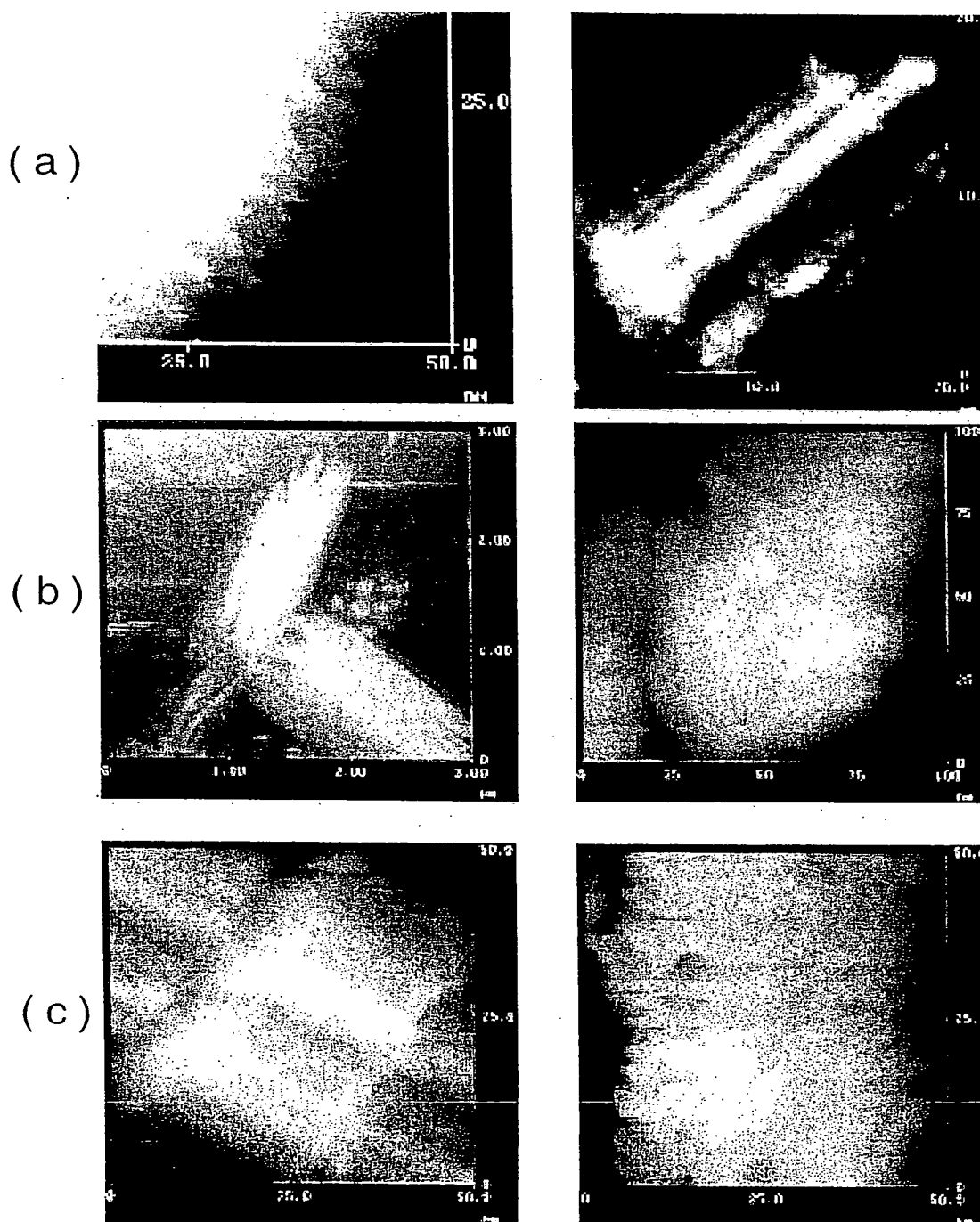


FIG. 30

High Resolution Transmission Electron Microscope
Photographs and Raman Spectra of Fibrous Nanocarbon

(a) (b) (c)

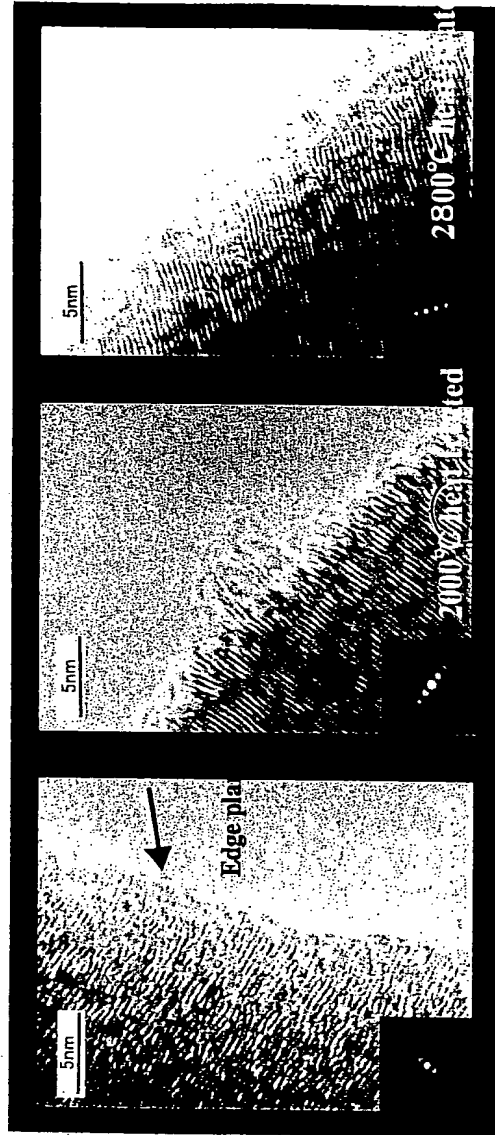


FIG. 31

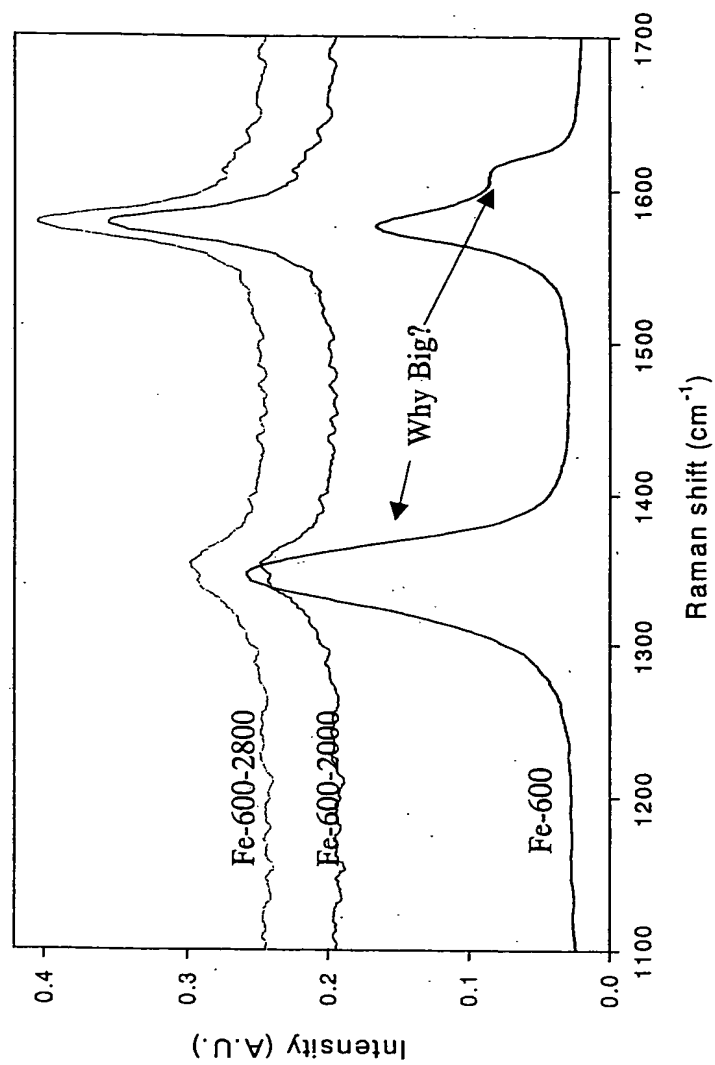


FIG. 32

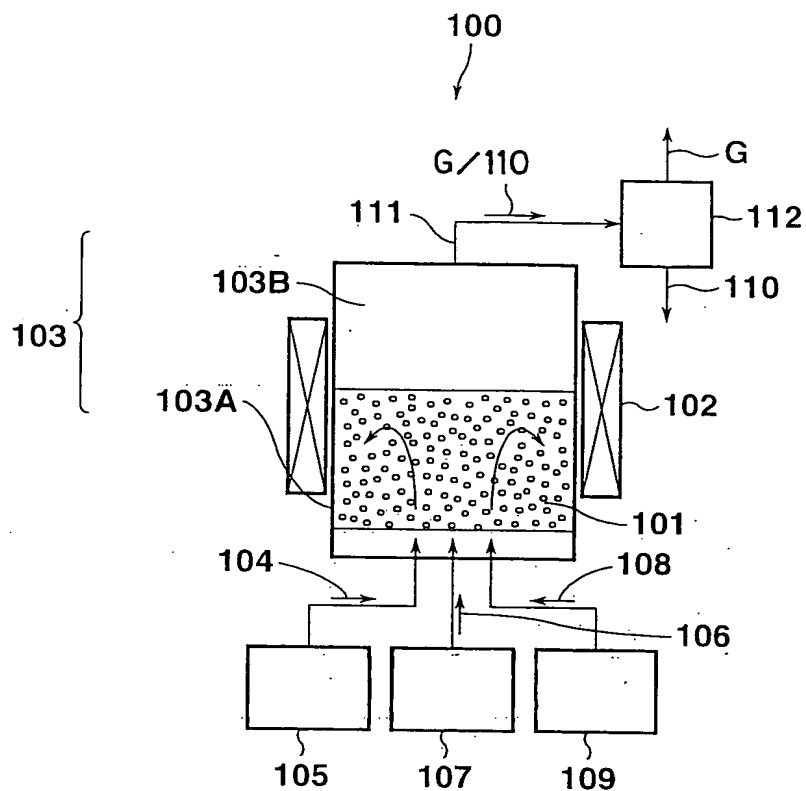


FIG. 33

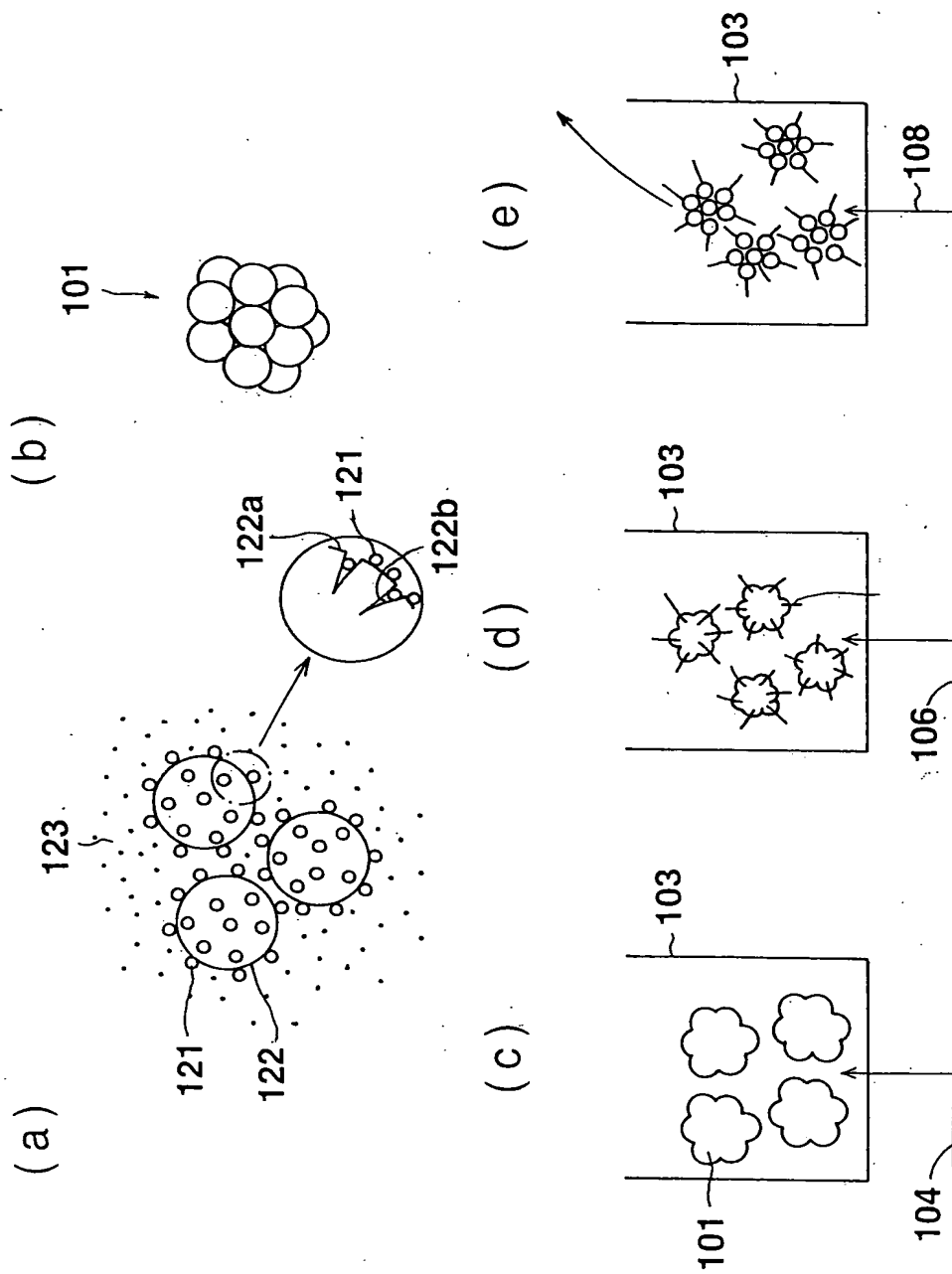


FIG. 34

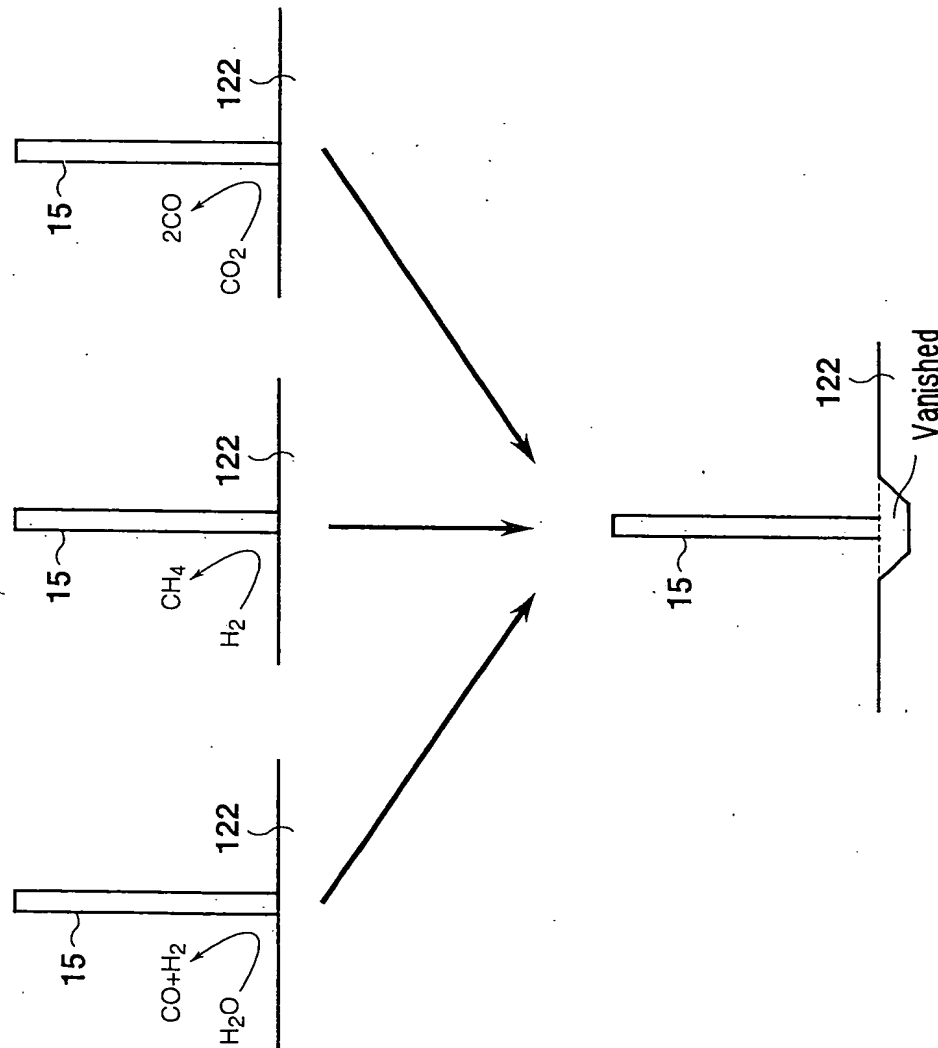


FIG. 35

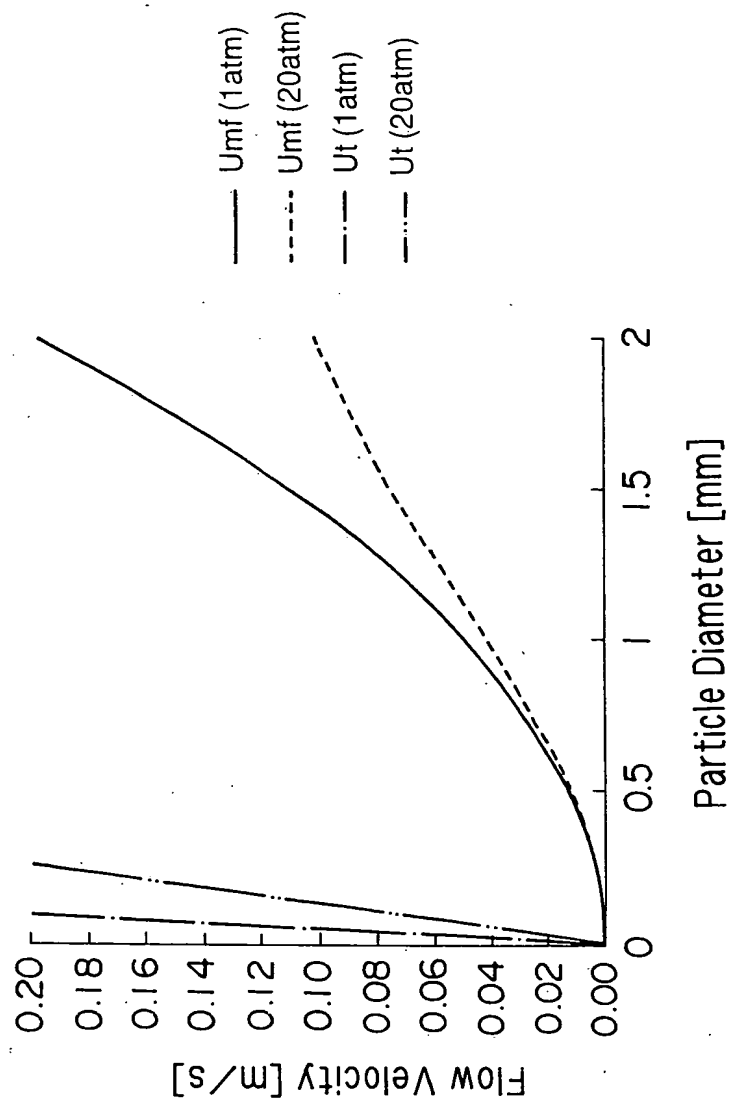


FIG. 36

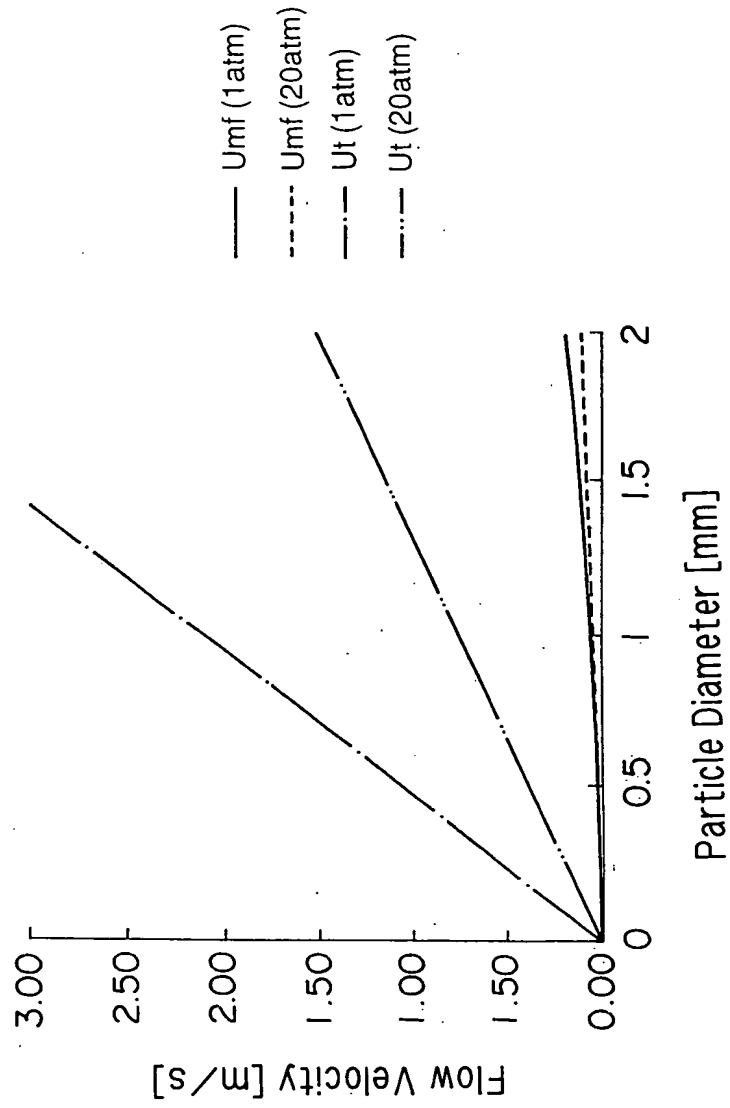


FIG. 37

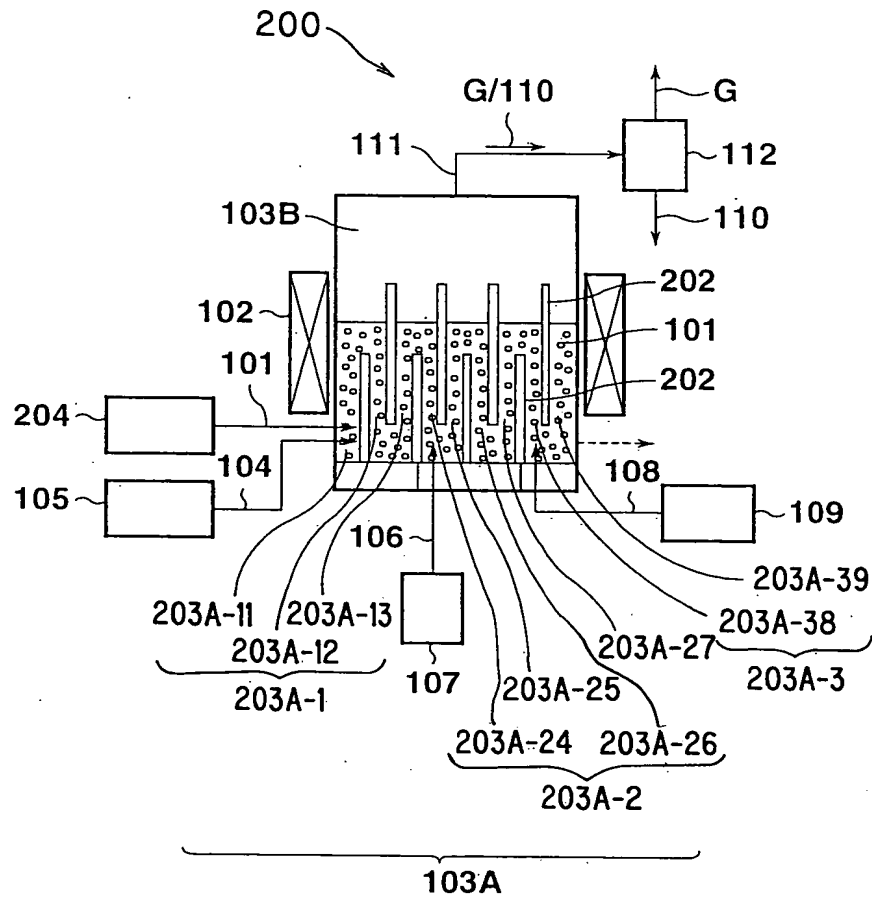


FIG. 38

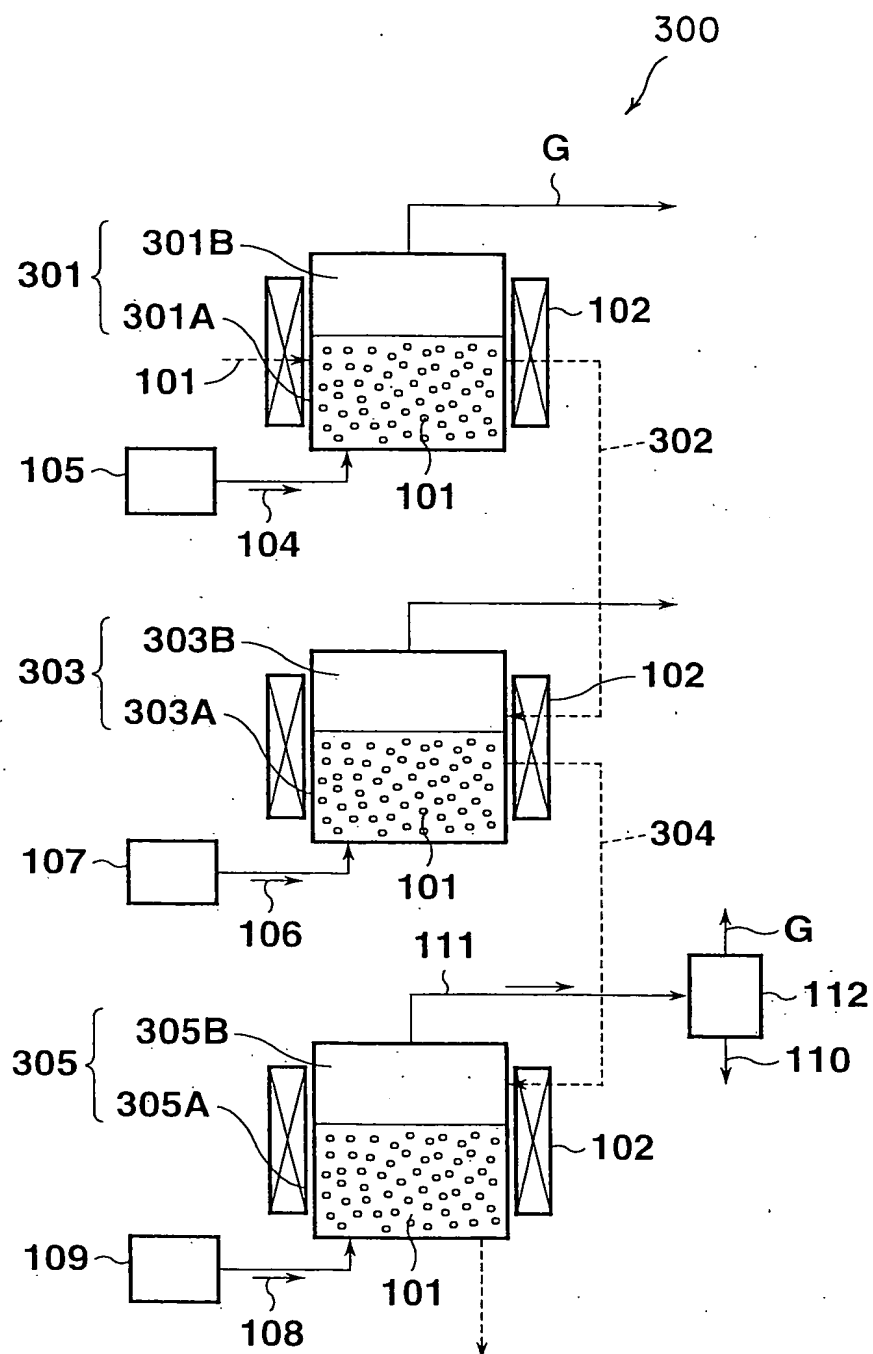


FIG. 39

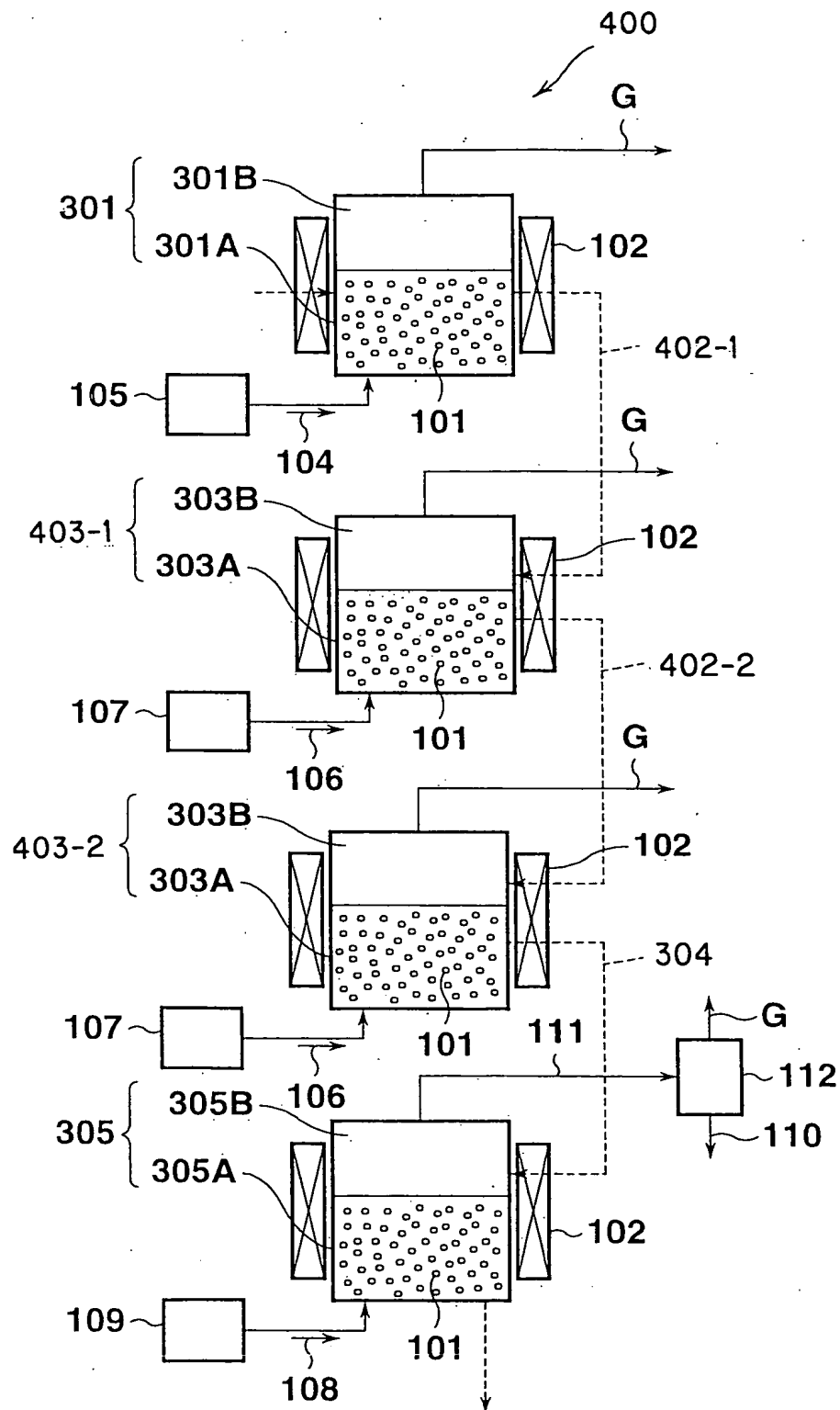


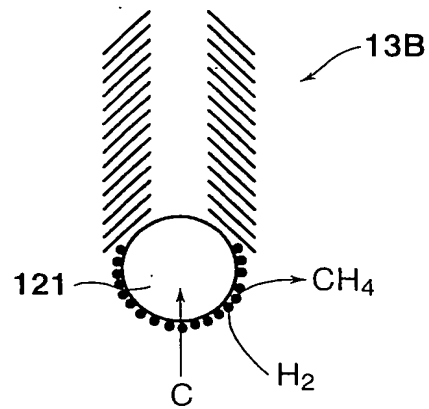
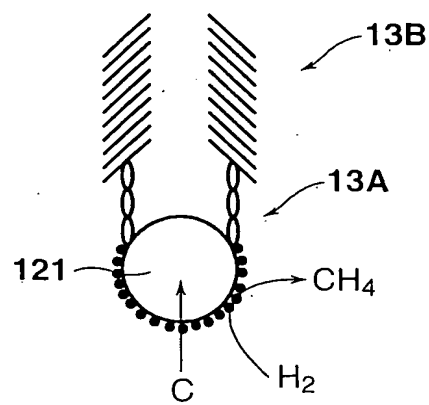
FIG. 40**FIG. 41**

FIG. 42

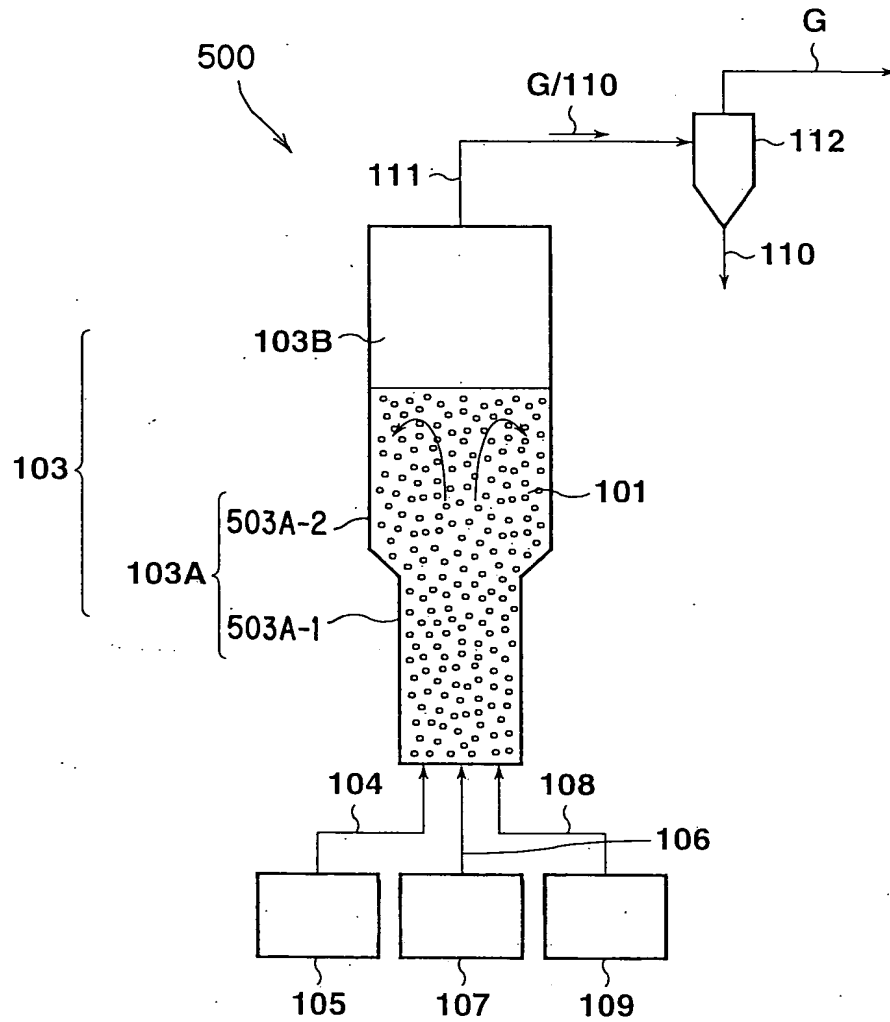


FIG. 43

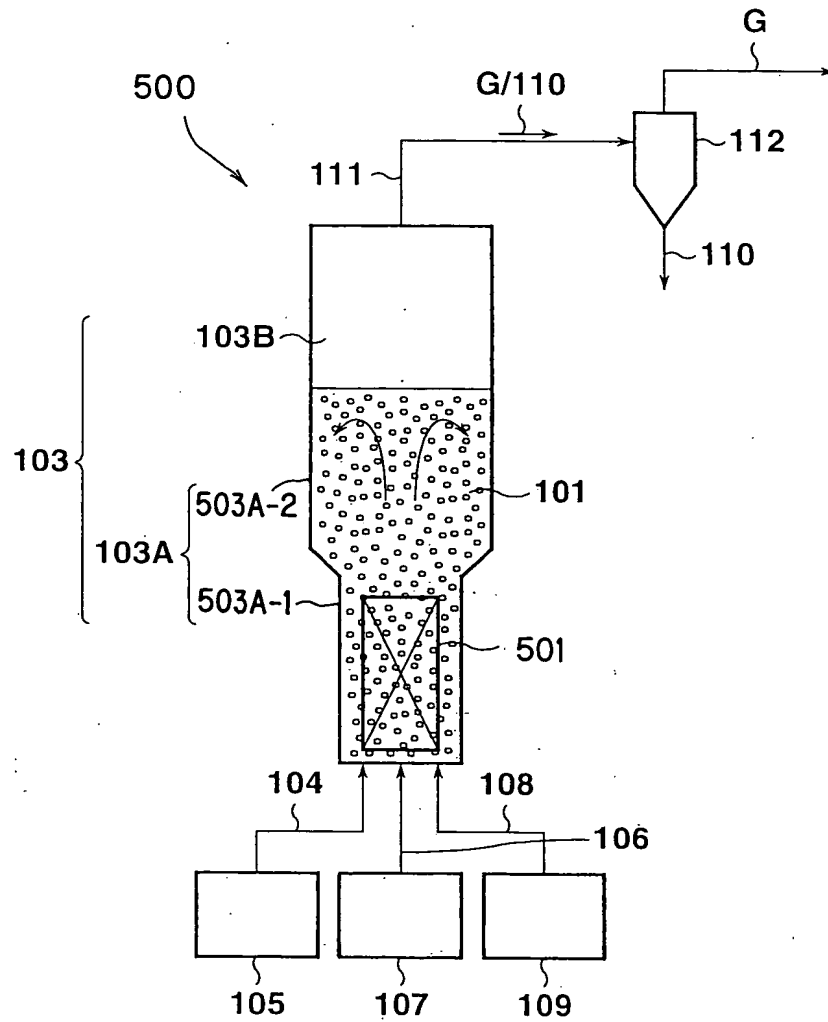


FIG. 44

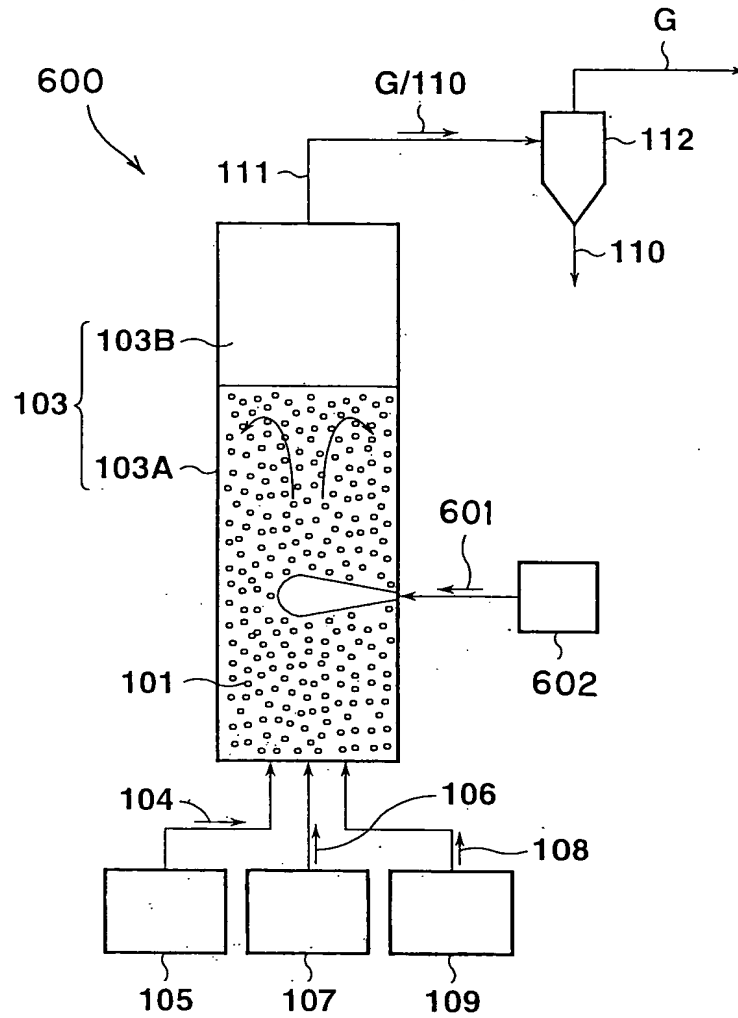


FIG. 45

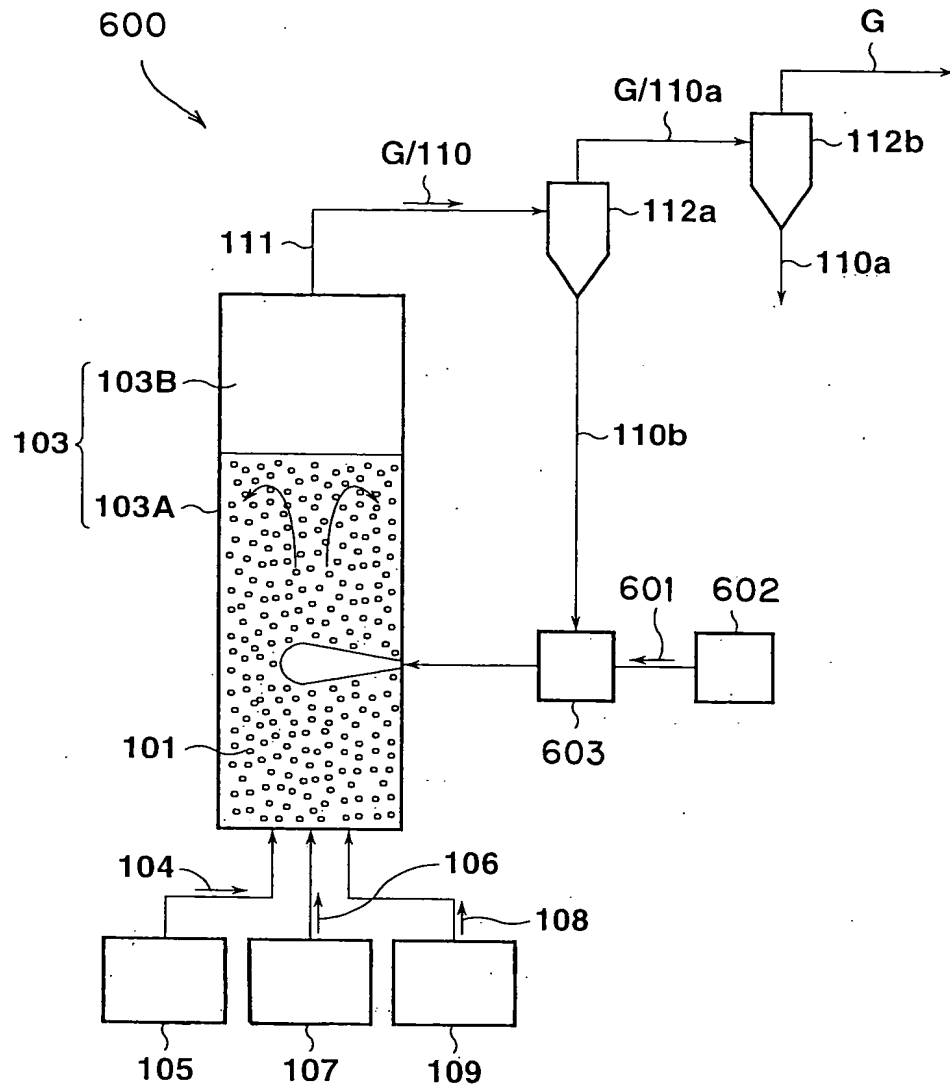


FIG. 46

(a)

 $\text{—} 1\mu\text{m} \quad \times 10000$

(b)

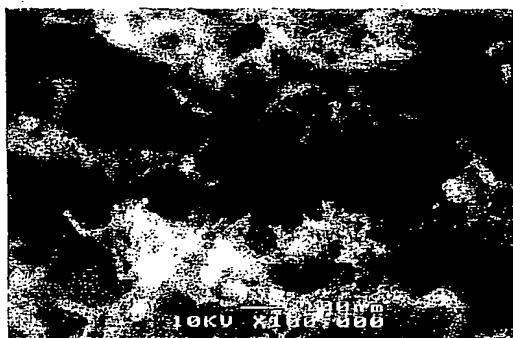
 $\text{—} 1\text{nm} \quad \times 100000$

FIG. 47

(a)

└ 1 μ m

×10000

(b)



└ 100nm

×50000

FIG. 48

(a)

 $\text{—} 1\mu\text{m} \quad \times 10000$

(b)

 $\text{—} 100\text{nm} \quad \times 100000$

FIG. 49

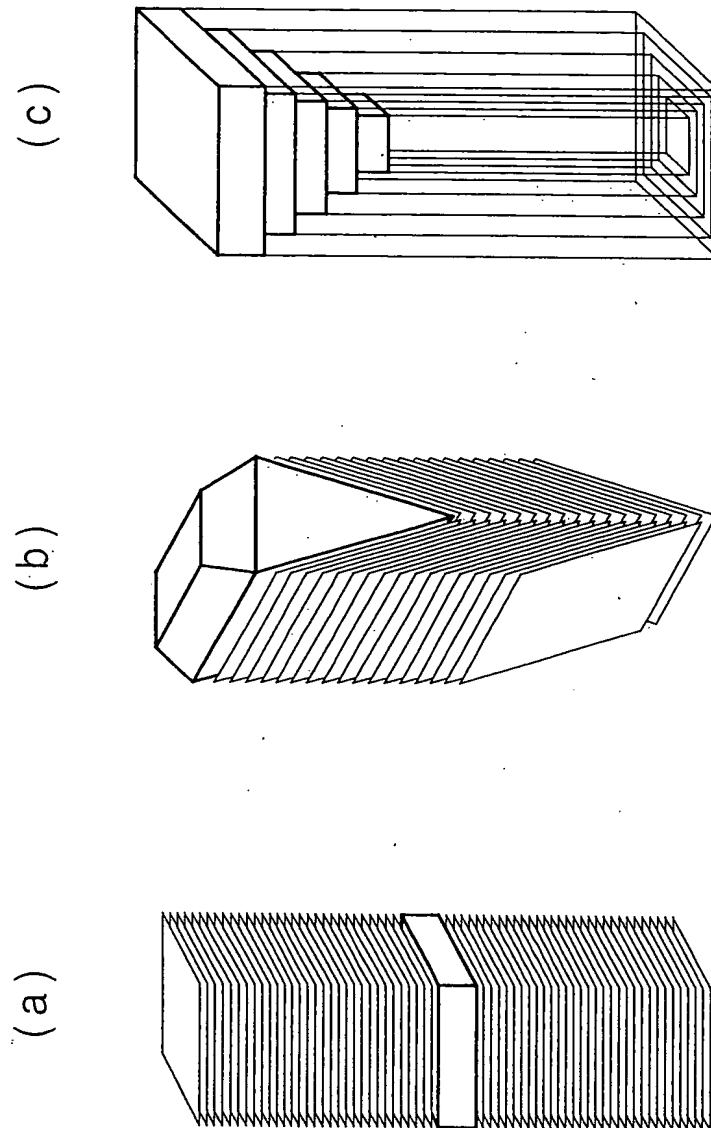


FIG. 50

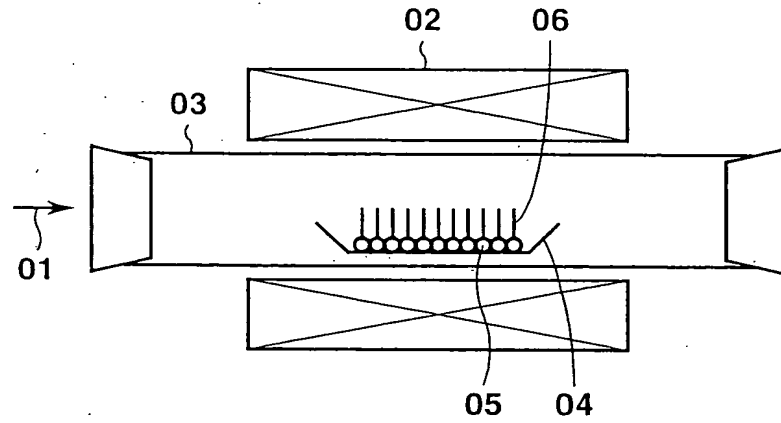
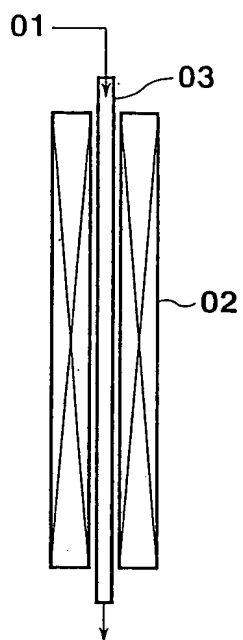


FIG. 51

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